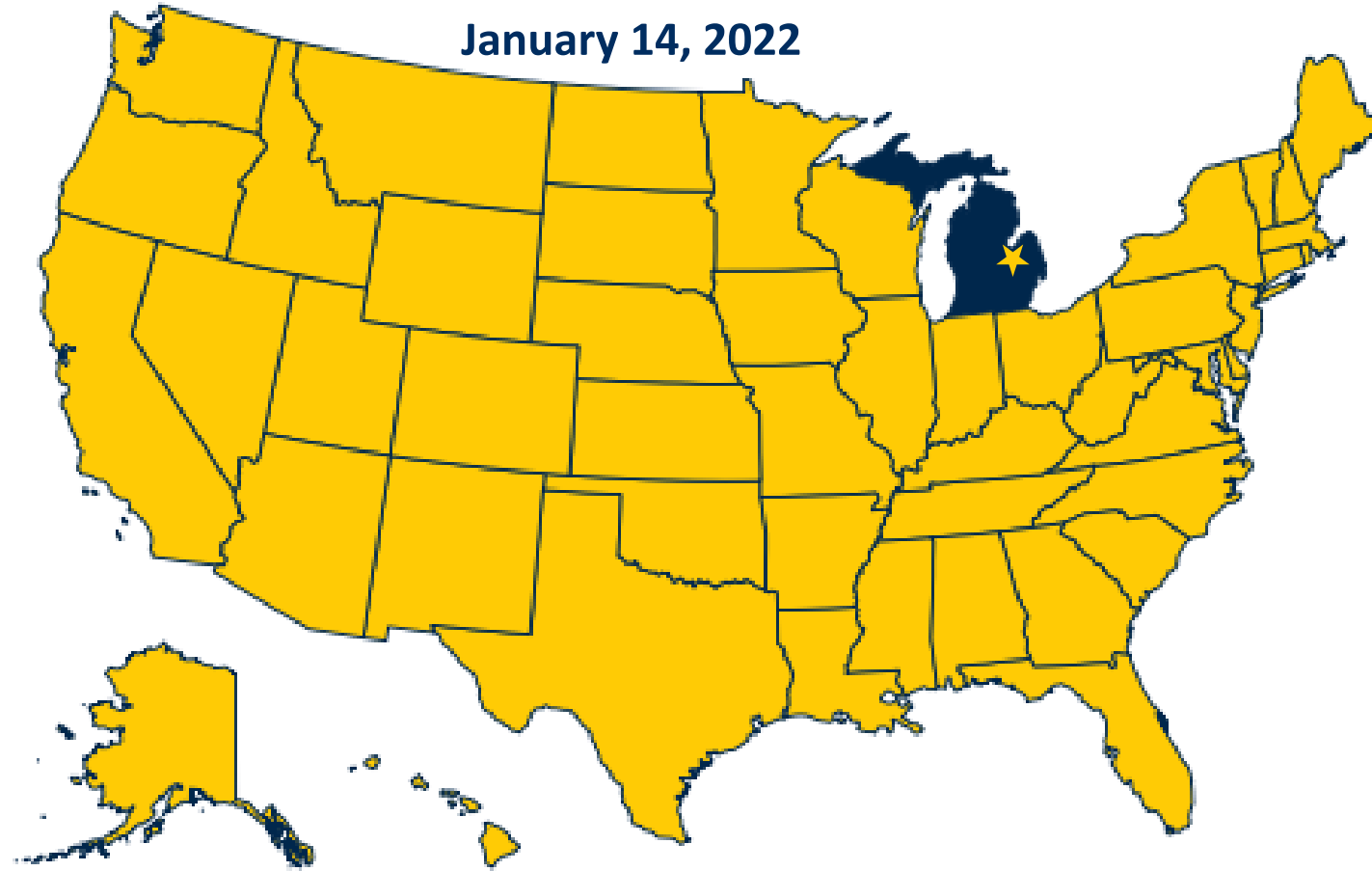


The U.S. and Michigan Outlook for 2022–2024

Consensus Revenue Estimating Conference

Lansing, Michigan

January 14, 2022

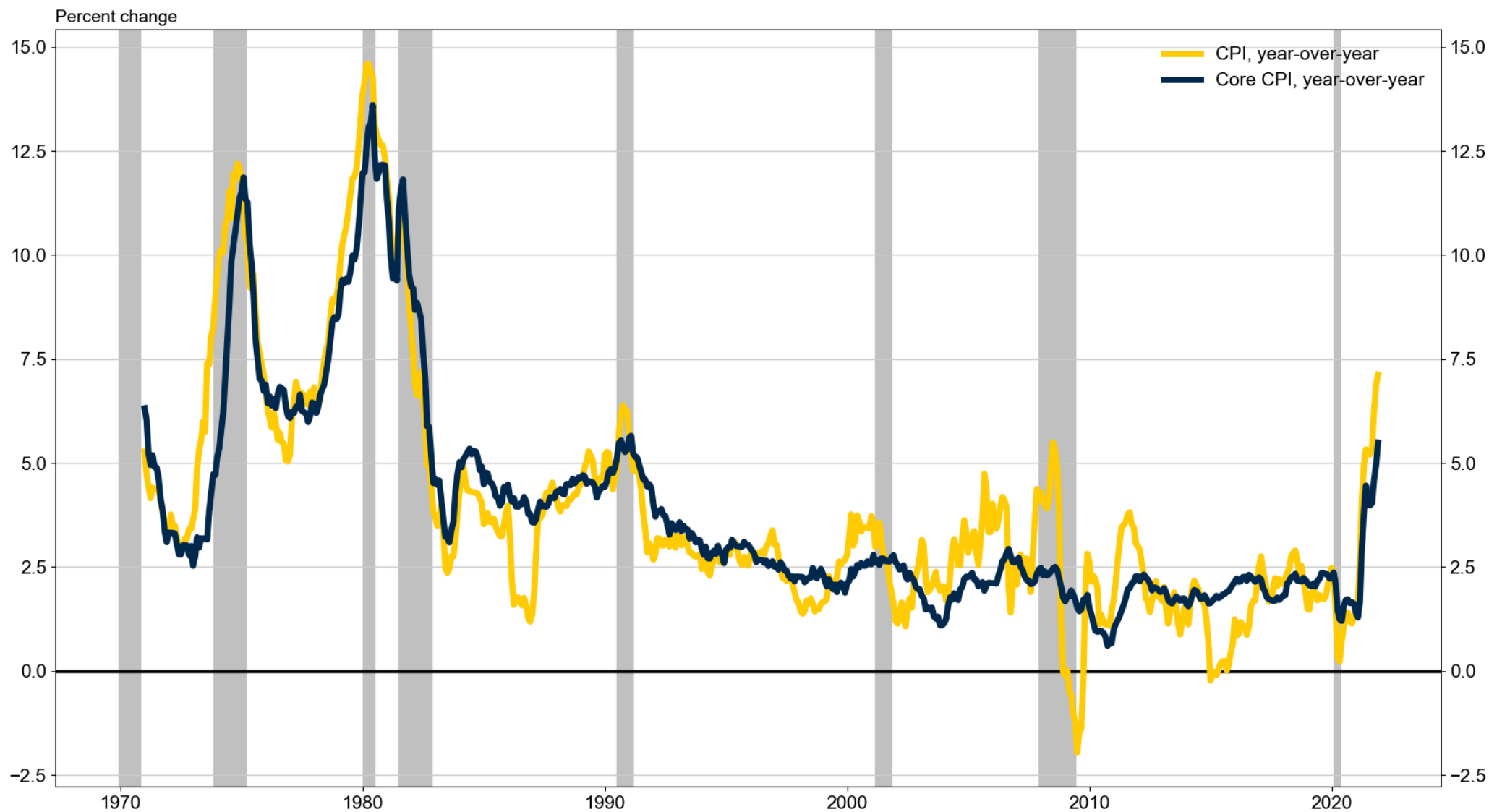


Research Seminar in Quantitative Economics

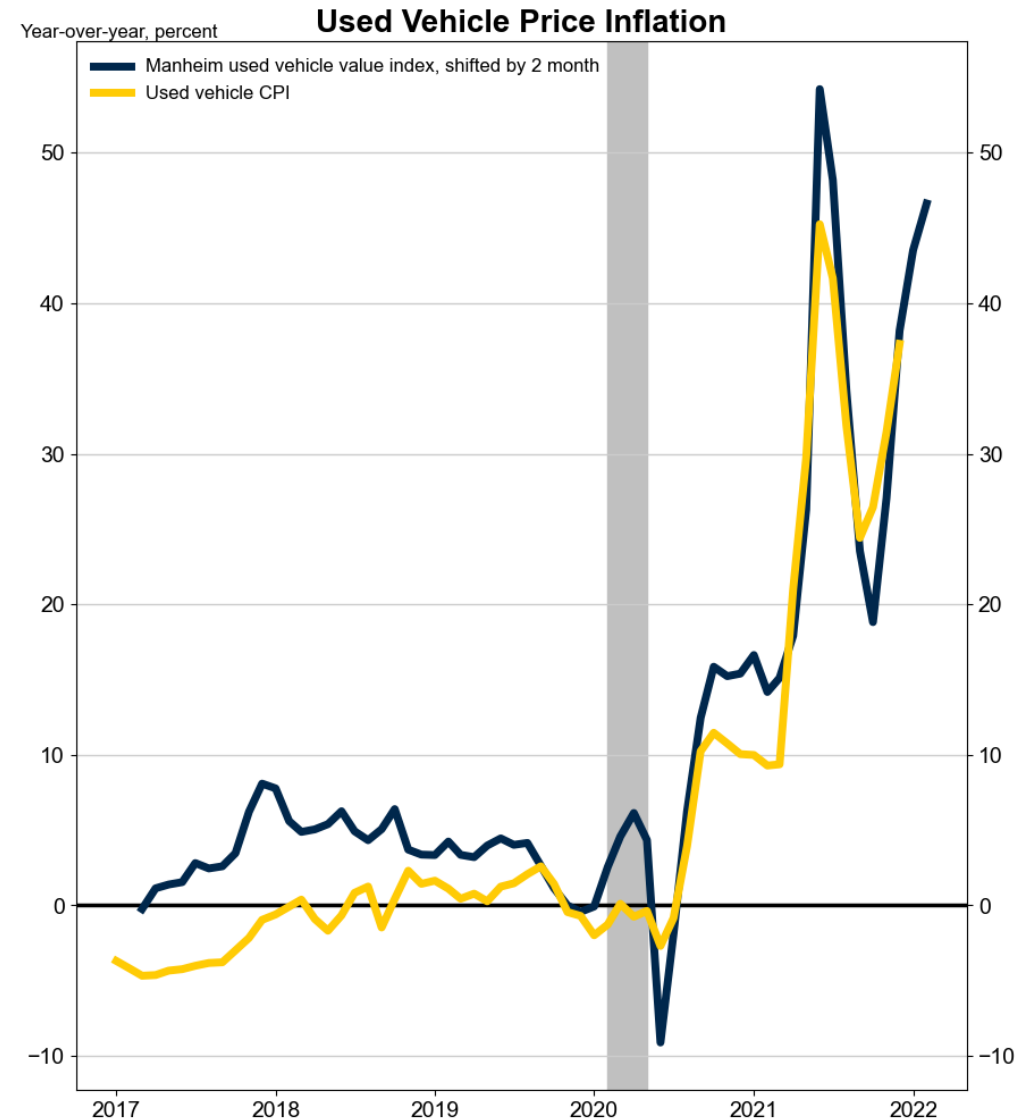
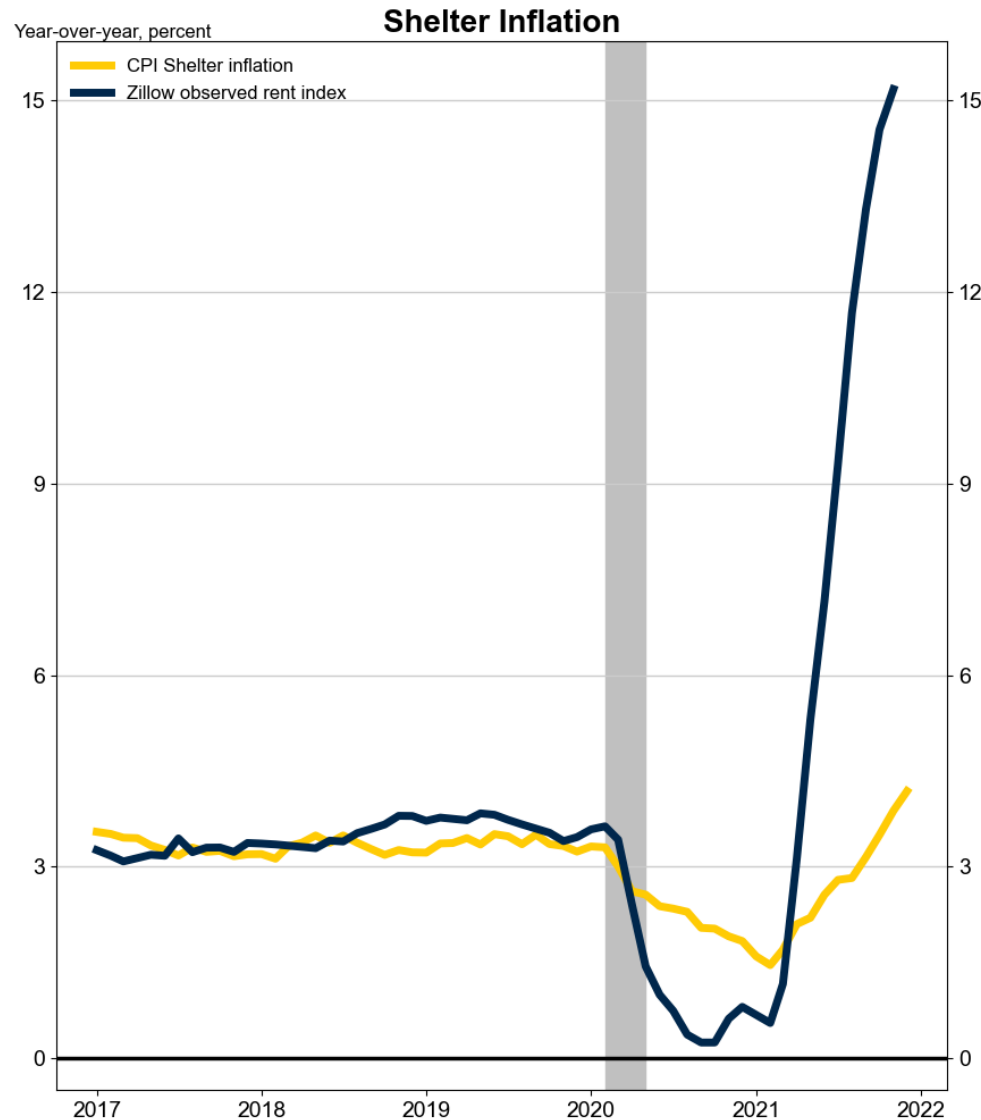


Current State of the U.S. Economy

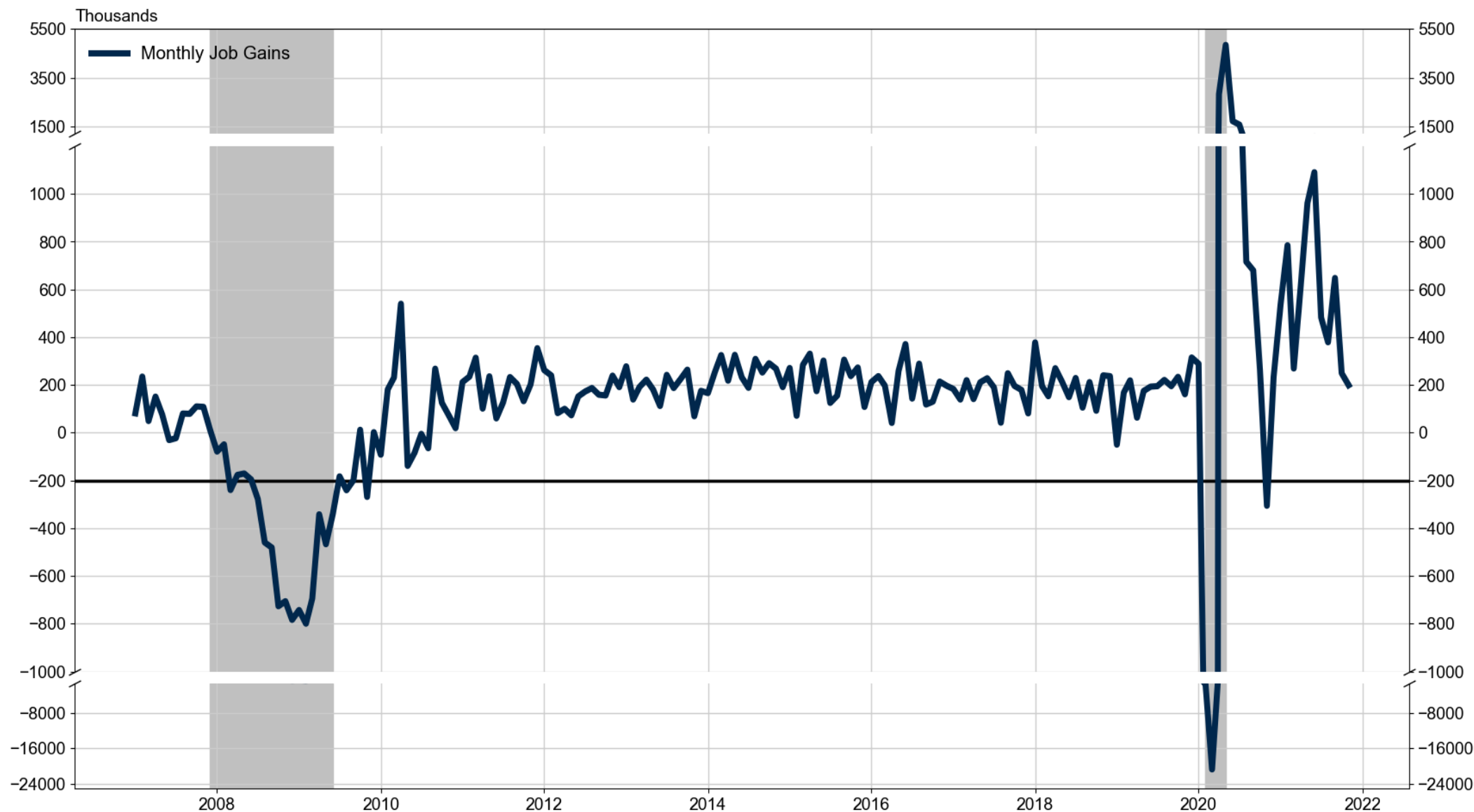
Consumer Price Index



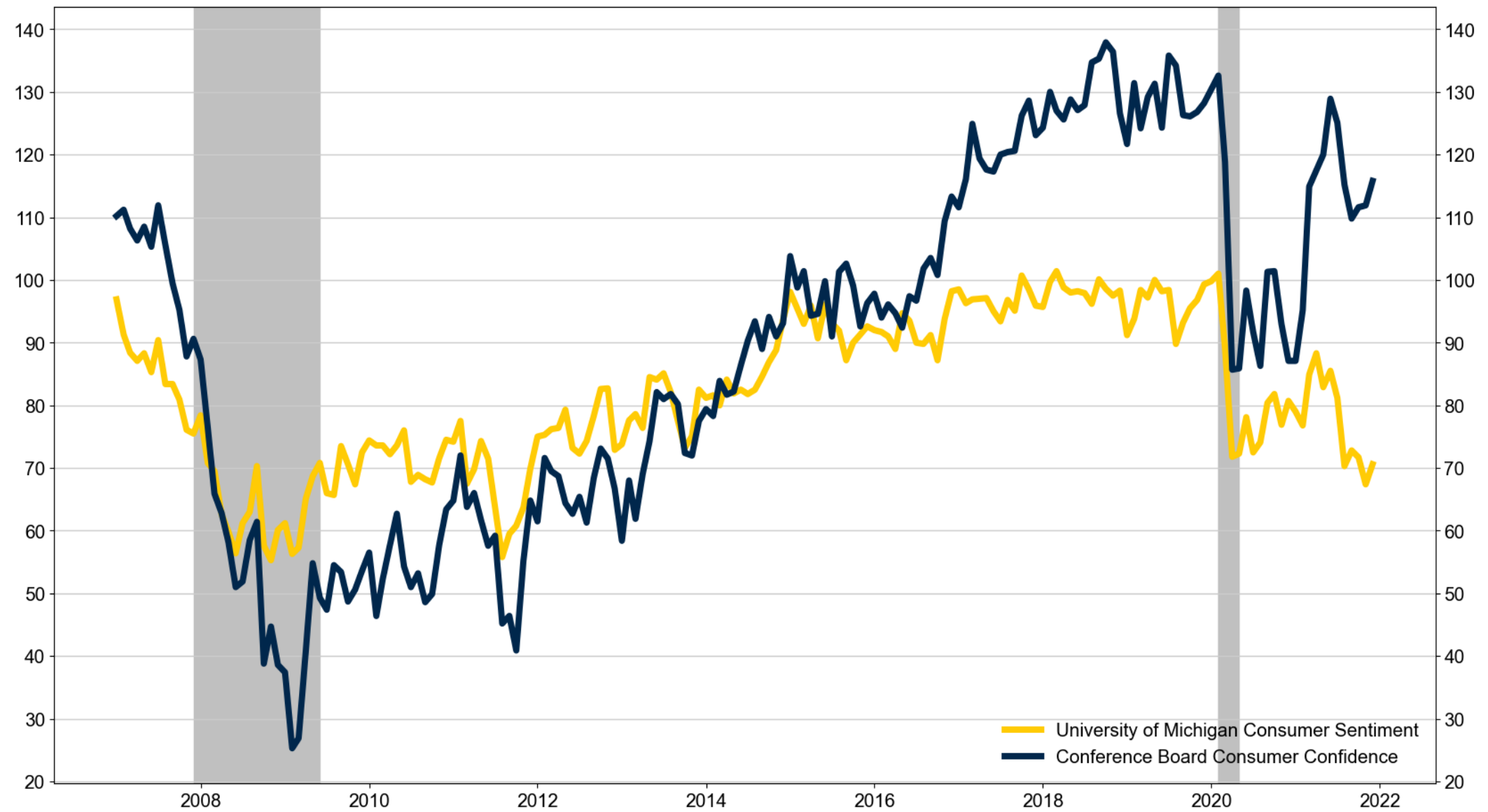
Inflation Pressures



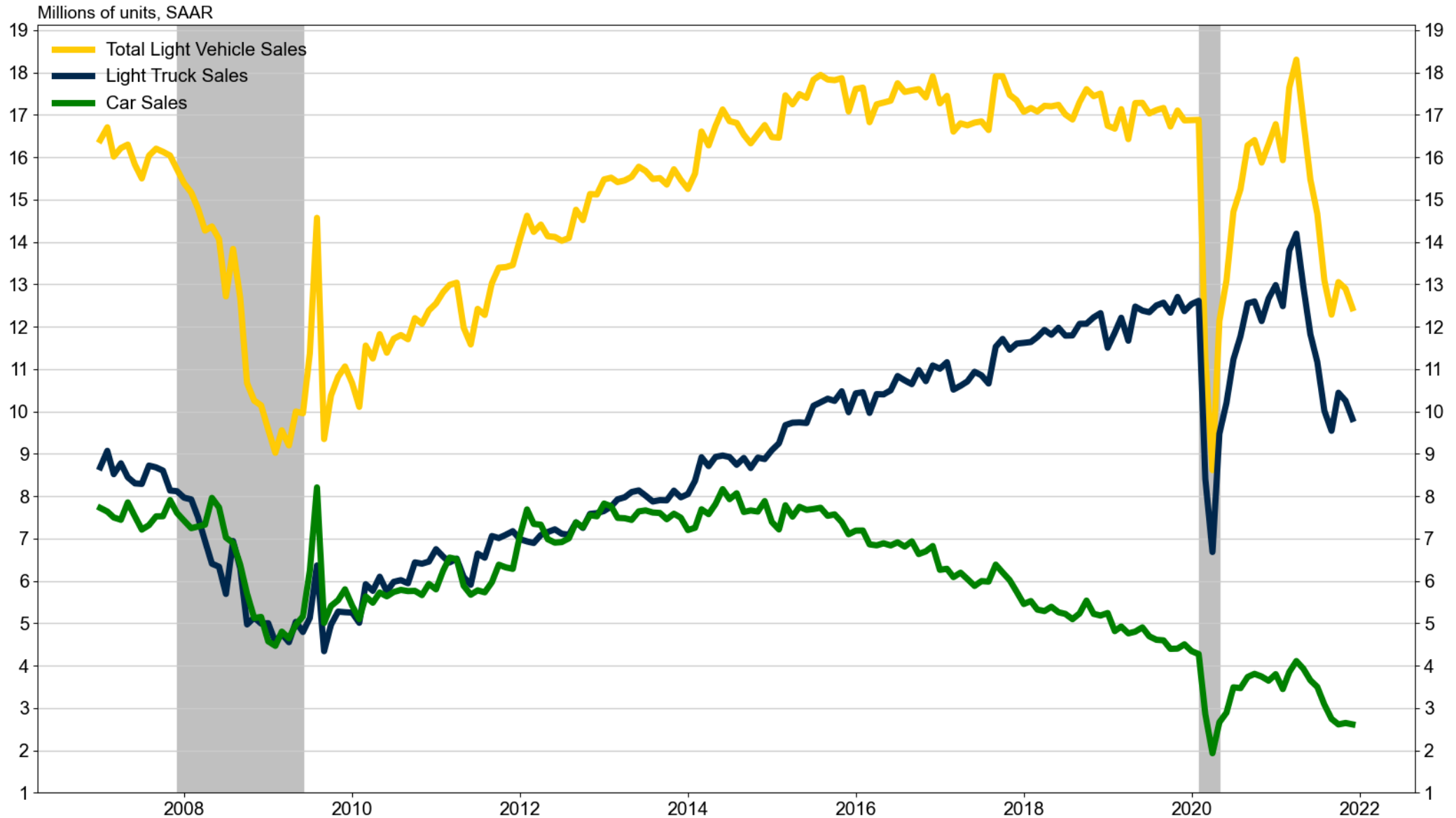
Monthly Payroll Job Gains



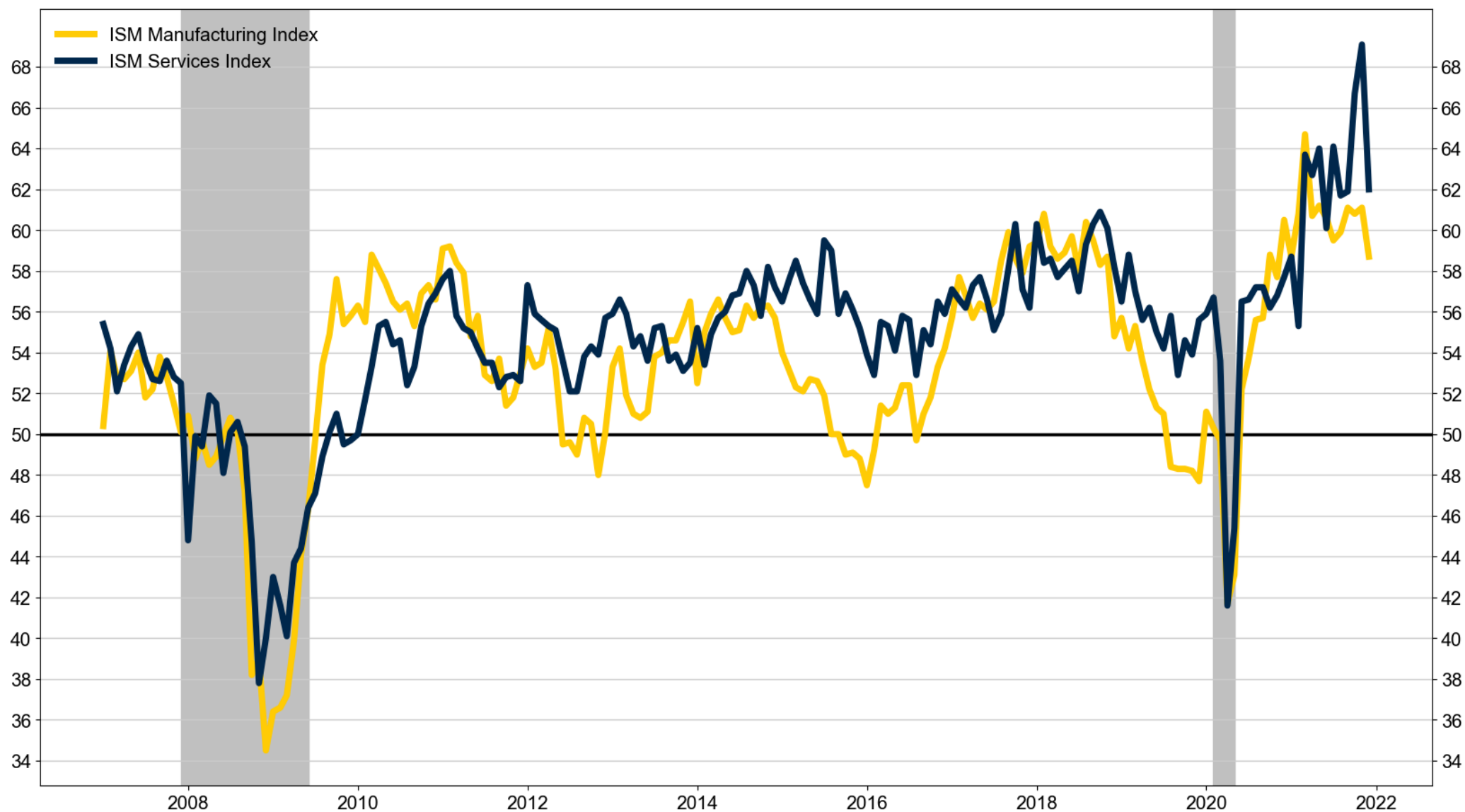
Consumer Sentiment



Monthly Light Vehicle Sales



ISM PMIs

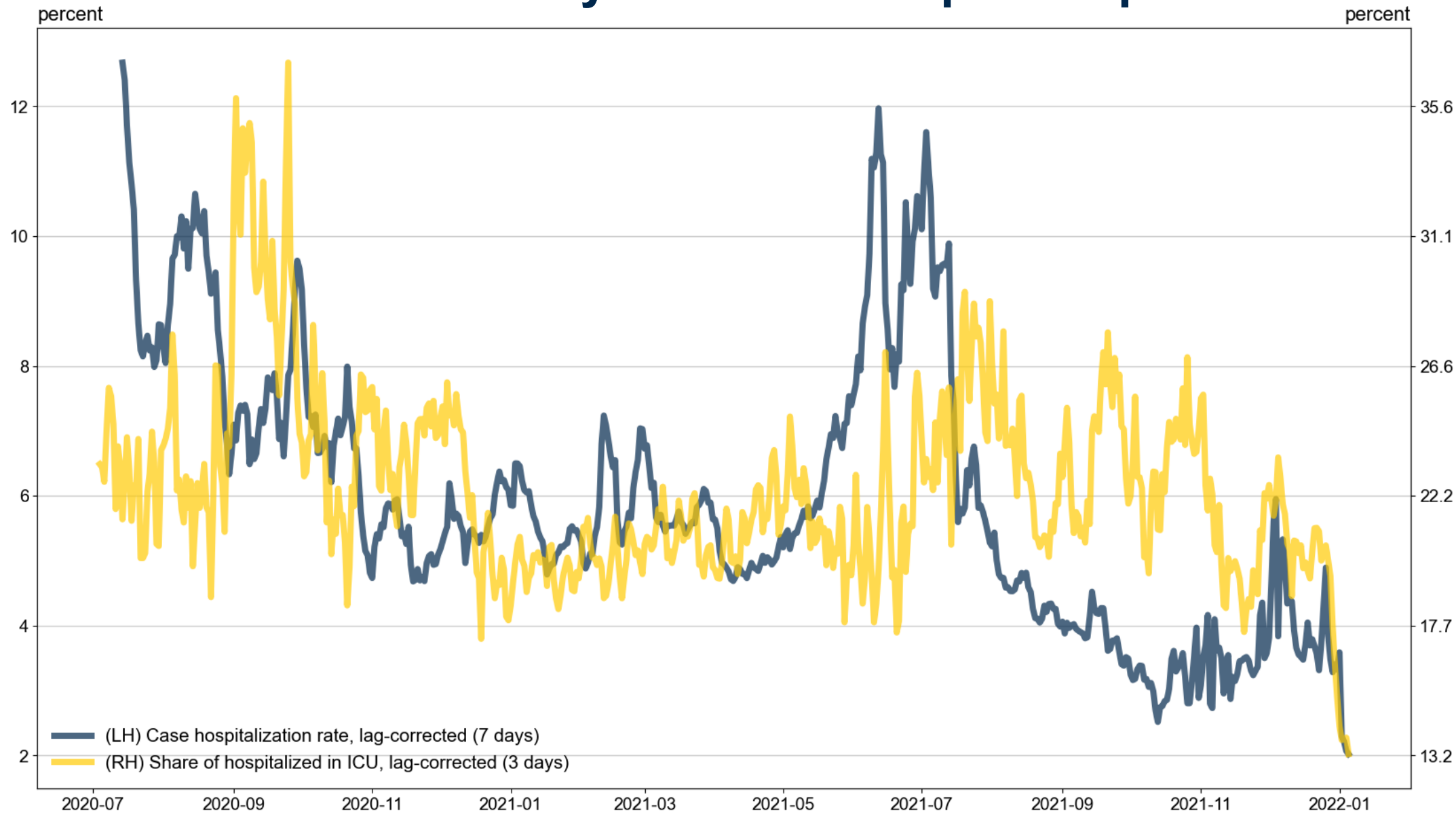


Inputs

Pandemic Dynamics Assumptions

- Omicron spreads quickly, infects vaccinated more easily, but seems considerably milder than previous strains
 - Just-released [Kaiser Permanente comparison of Omicron to Delta](#) shows:
 - ~60% lower case hospitalization rate, ~70% shorter hospital stays (by 3.4 days)
 - ~75% lower case ICU admission rate, ~90% lower mortality rate
 - Note: early estimates, with wide confidence bands.
 - New York City data tells similar story. Omicron dominant since mid-December
 - With no harsh mitigation Omicron will spread widely and quickly
 - Moderate impact on 2022Q1 GDP and job growth due to labor supply disruption
- We assume no future strains of significantly higher severity
 - SARS-CoV-2 mutation patterns so far are quite unusual

New York City Omicron Hospital Impact



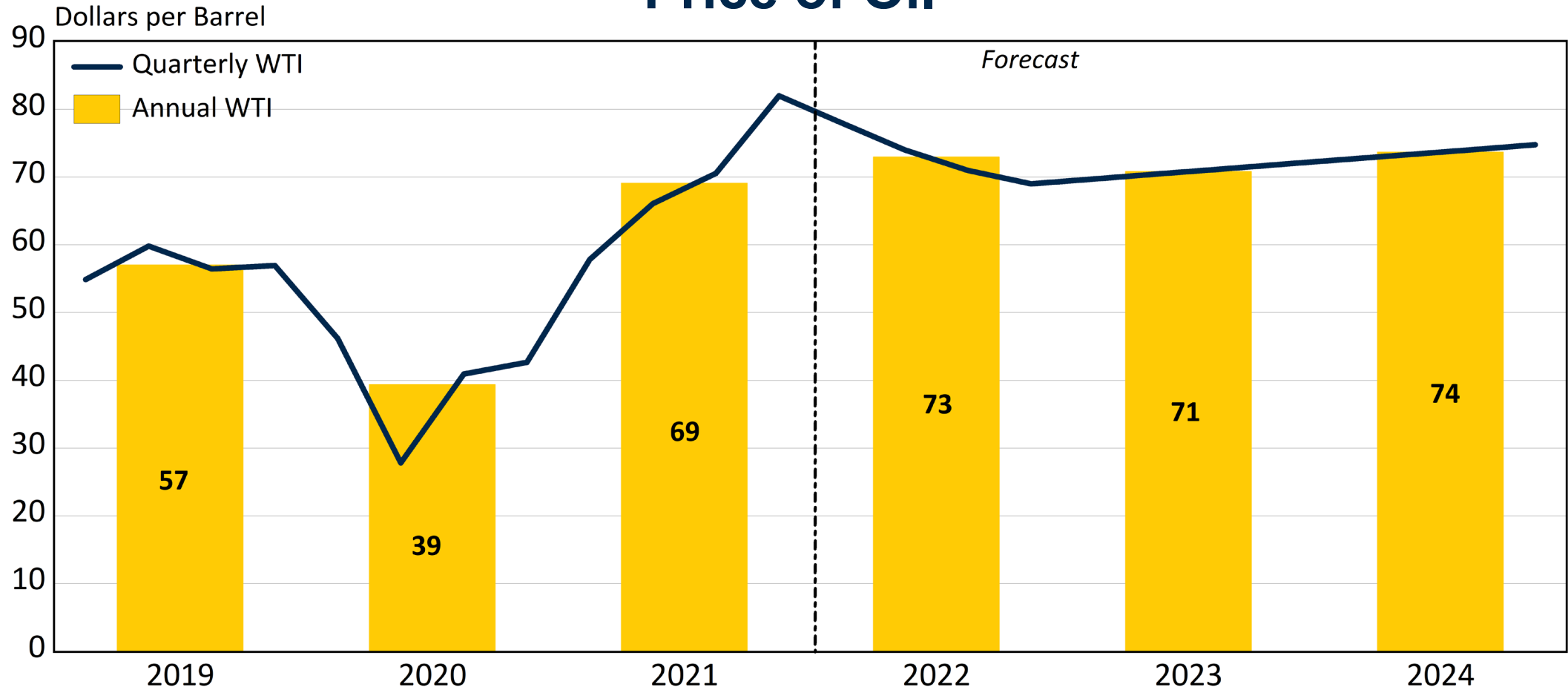
Monetary Policy

- Chair Powell reconfirmation imminent
- December 2021 unemployment rate below 4 percent
 - Payroll job count still 3.5 million shy of pre-pandemic peak
- Inflation very high, supply chain stress lingers
- Near-term inflation expectations rising, but long-term expectations still anchored
- We expect the first fed funds rate hike in May 2022
 - March is likely to soon to assess the damage due to the Omicron wave
- Rate range will reach 0.75–1.00 percent by the end of 2022
- 1.75–2.00 percent by the end of 2024

Fiscal Policy

- Biden Agenda currently on life support
 - Child Tax Credit, ACA credits, EITC credits lapsed. Will lower growth in 2022Q1
- We still expect a trimmed-down reconciliation bill to pass this spring
 - Scaled-down climate agenda
 - Lapsed tax credits partially reinstated, funded for 10 years
 - Limited personal and corporate tax increases/tweaks
 - SALT deduction cap repeal targeted at the middle class
 - About \$1.8 trillion total, fully paid-for

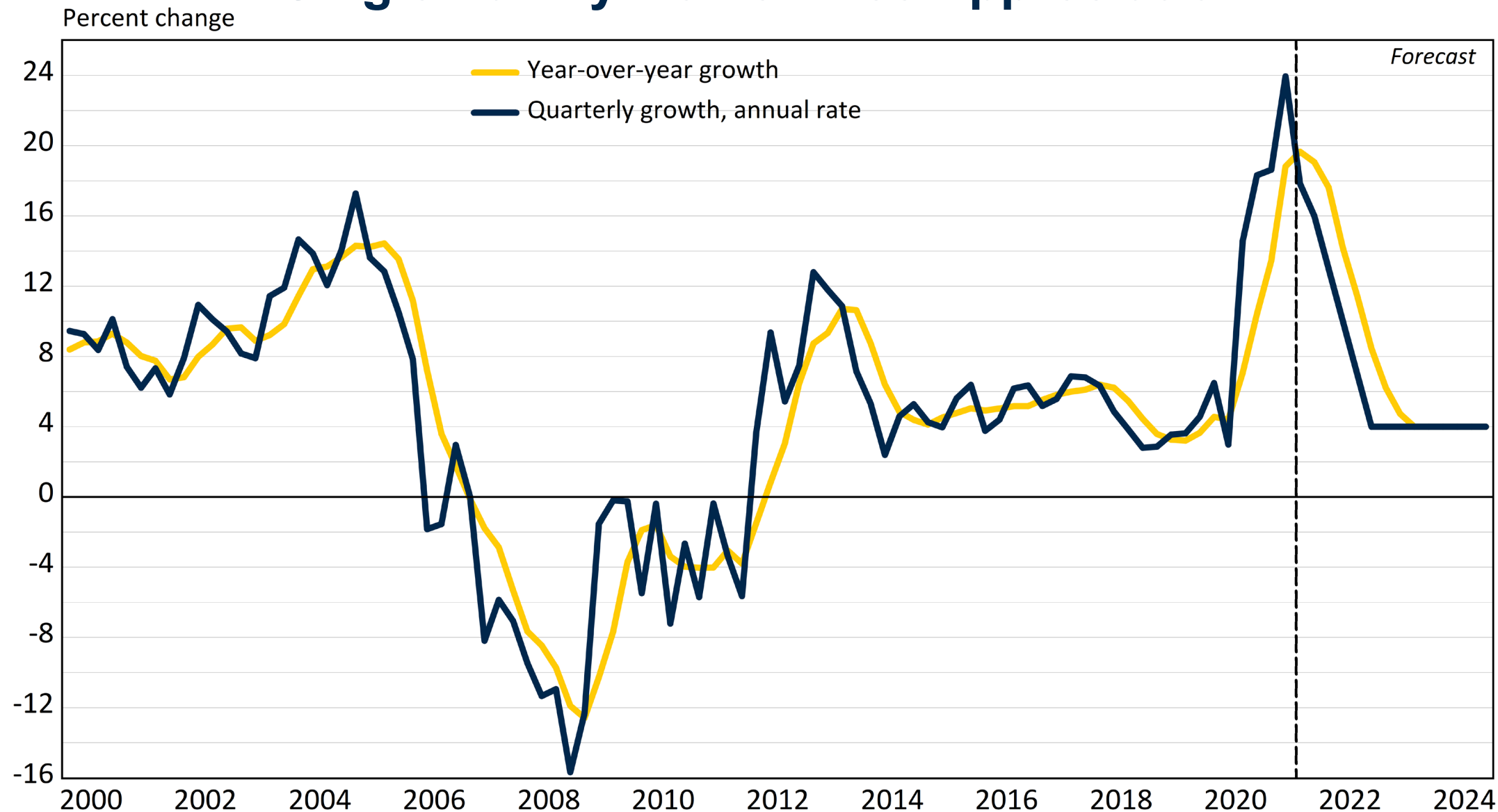
Price of Oil



4th Quarter to 4th Quarter % Change							
WTI	-3.1	-25.1	92.2	-15.9	4.2	4.0	
Imports*	-9.0	-29.4	93.4	-12.8	4.2	3.9	

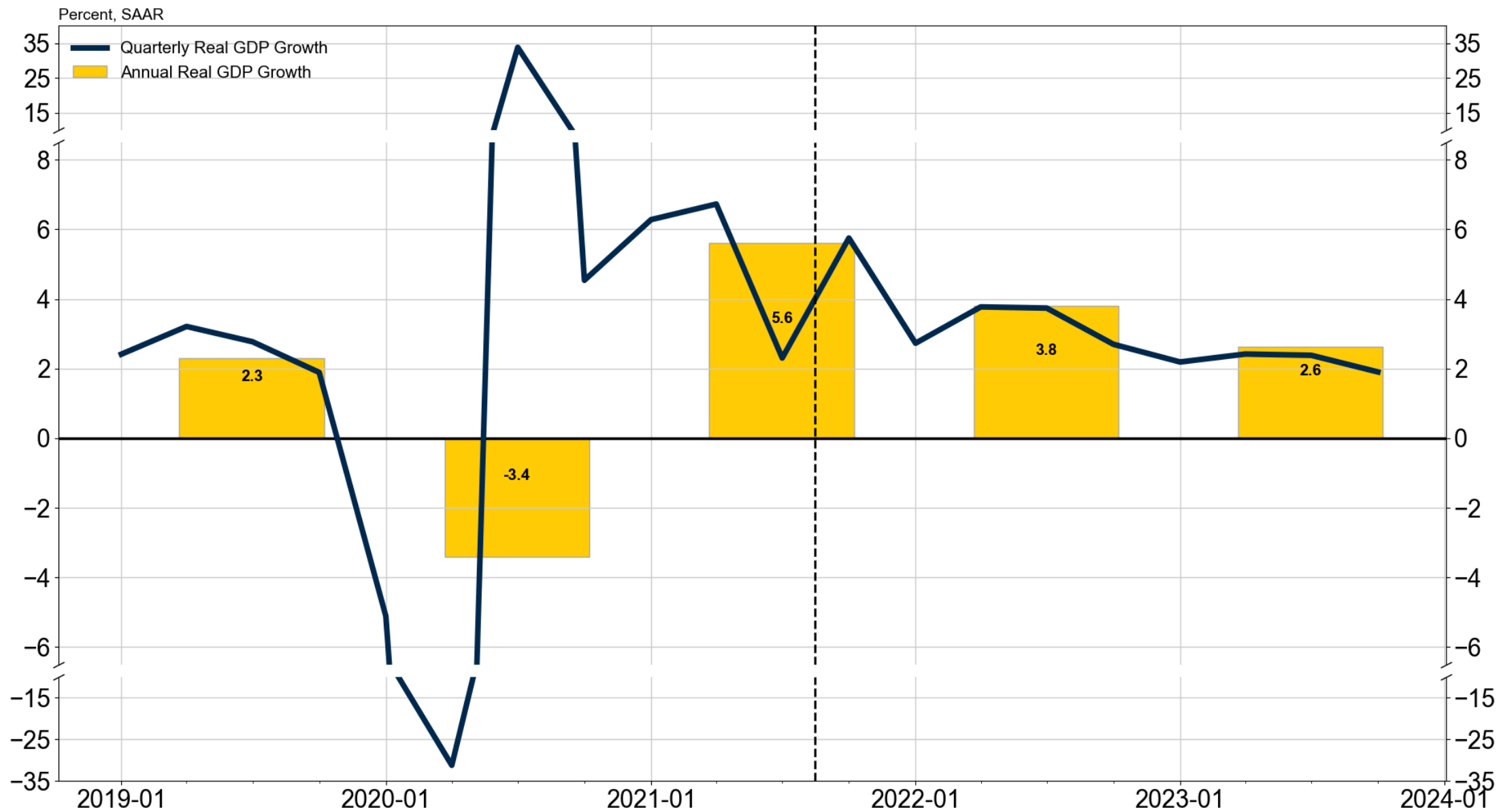
*Implicit deflator for petroleum & products

Single-Family Home Price Appreciation

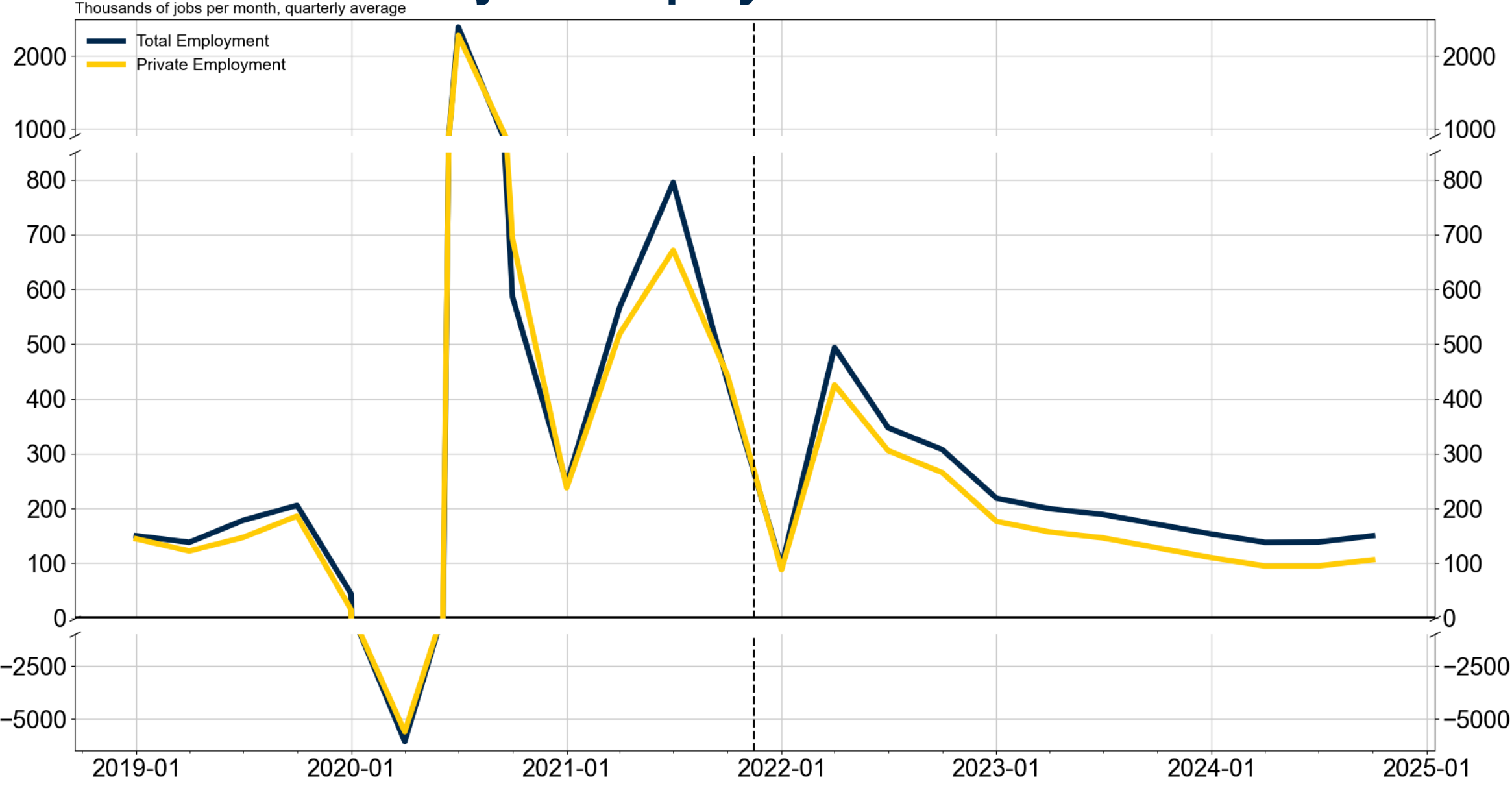


U.S. Forecast

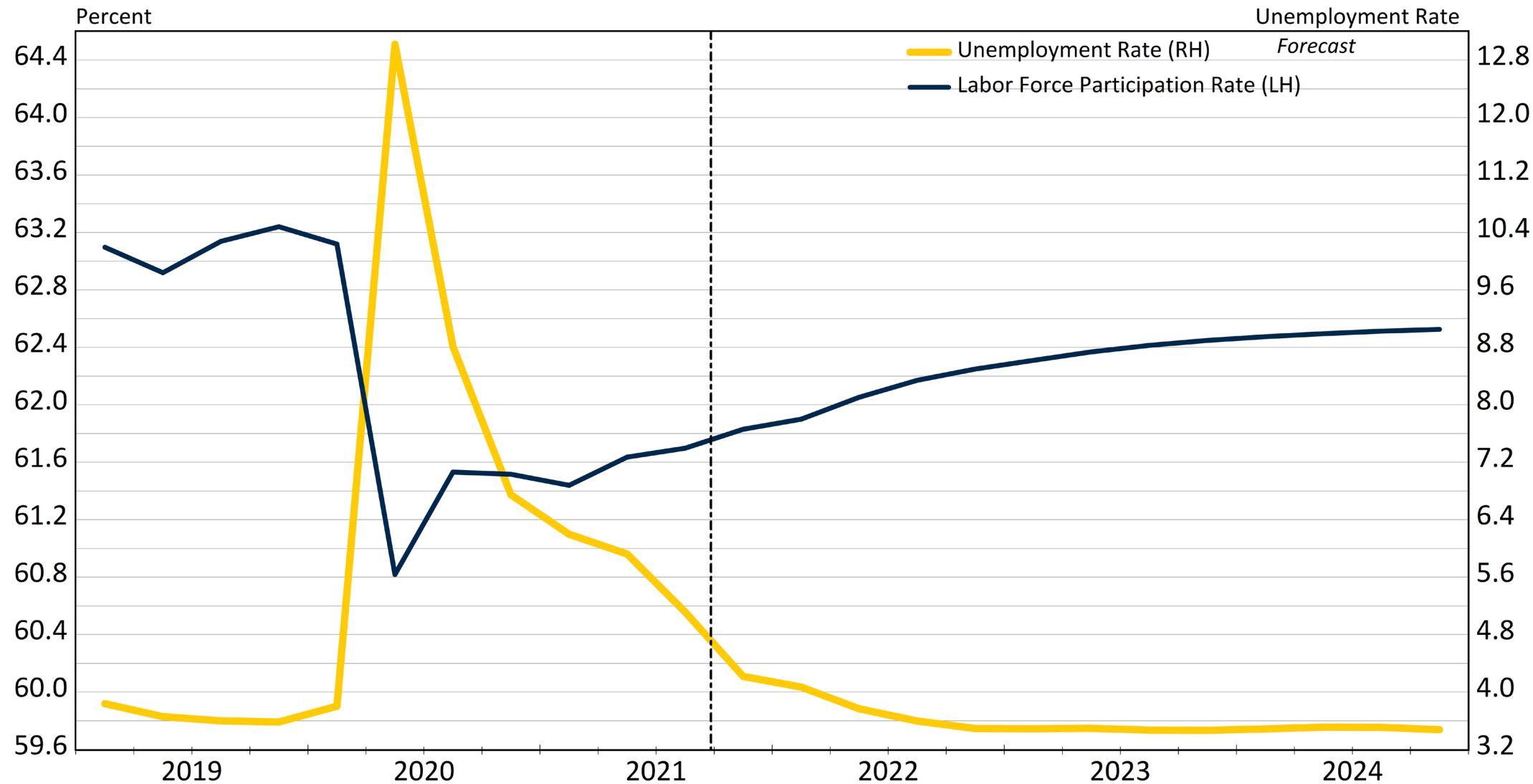
Real GDP Growth



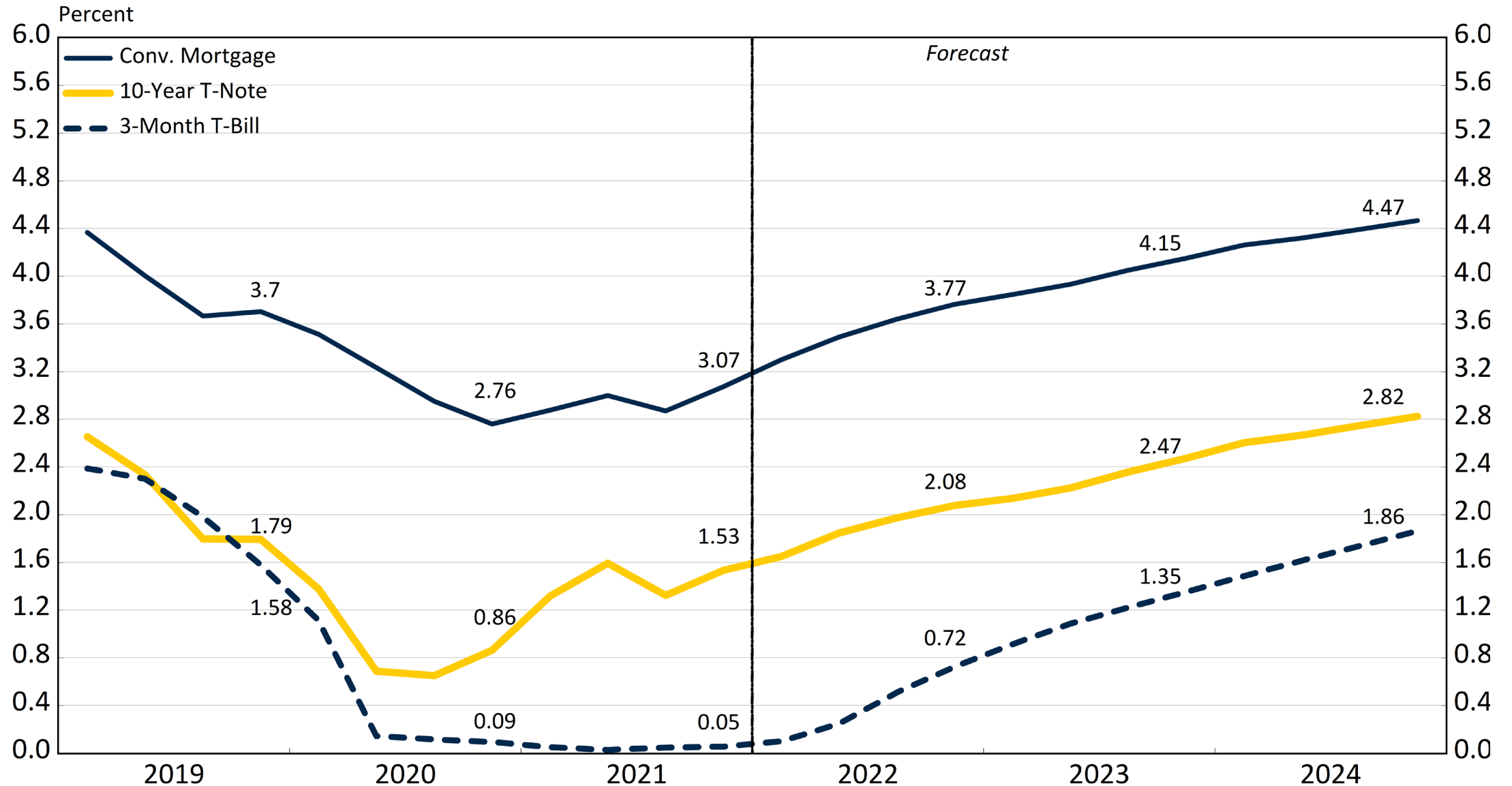
Payroll Employment Growth



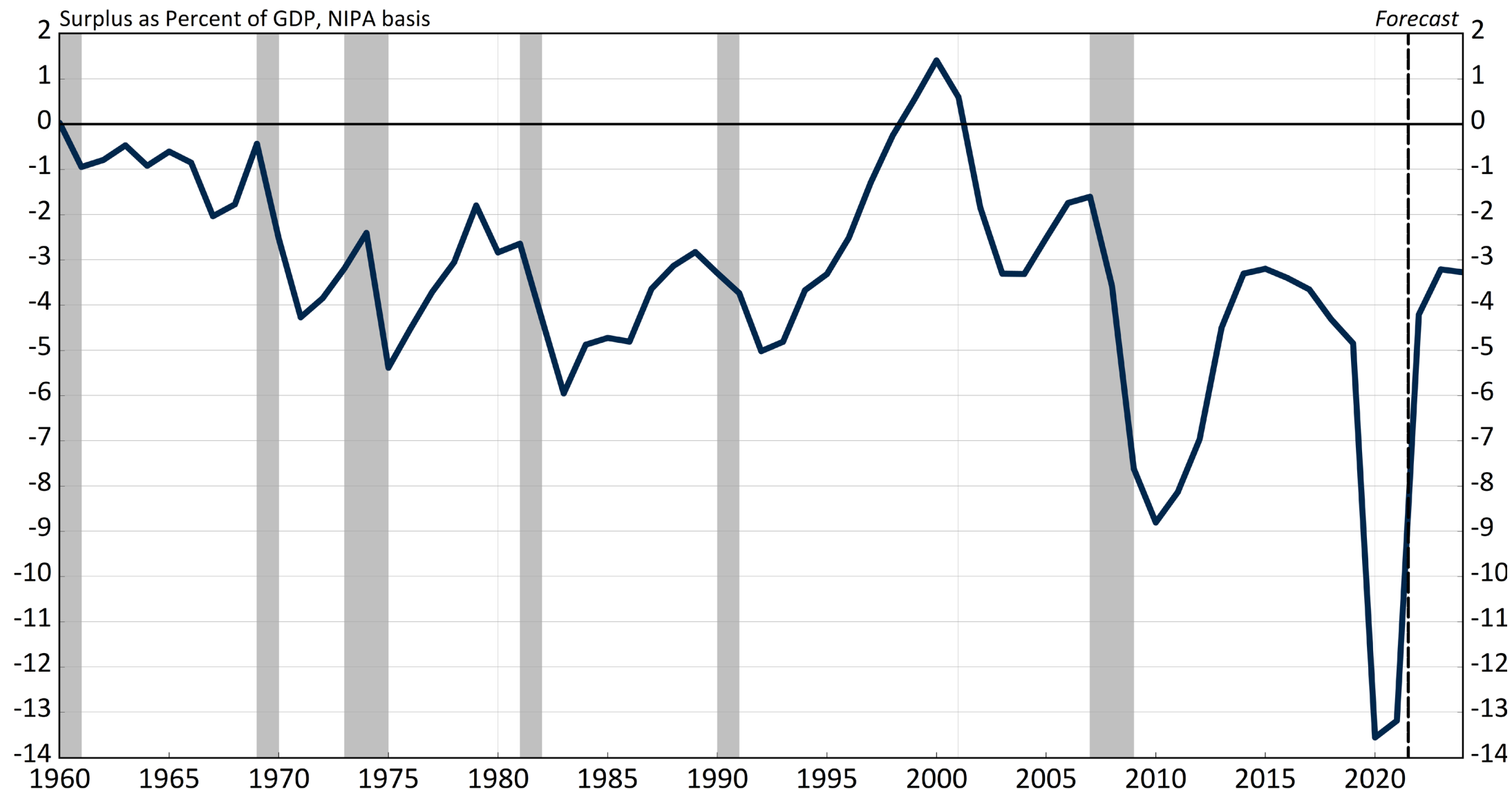
Unemployment Rate and Participation Rate



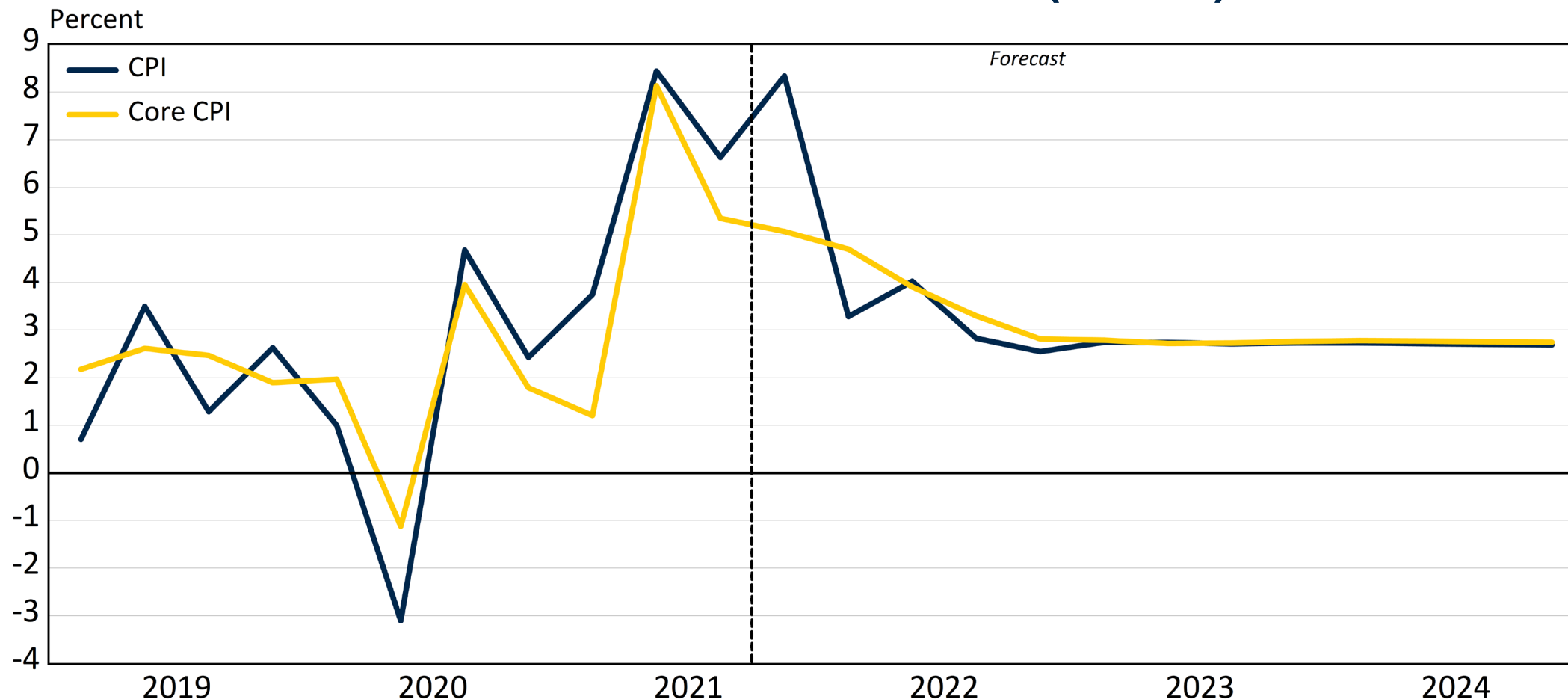
Interest Rates



Federal Budget Balance, Fiscal Year

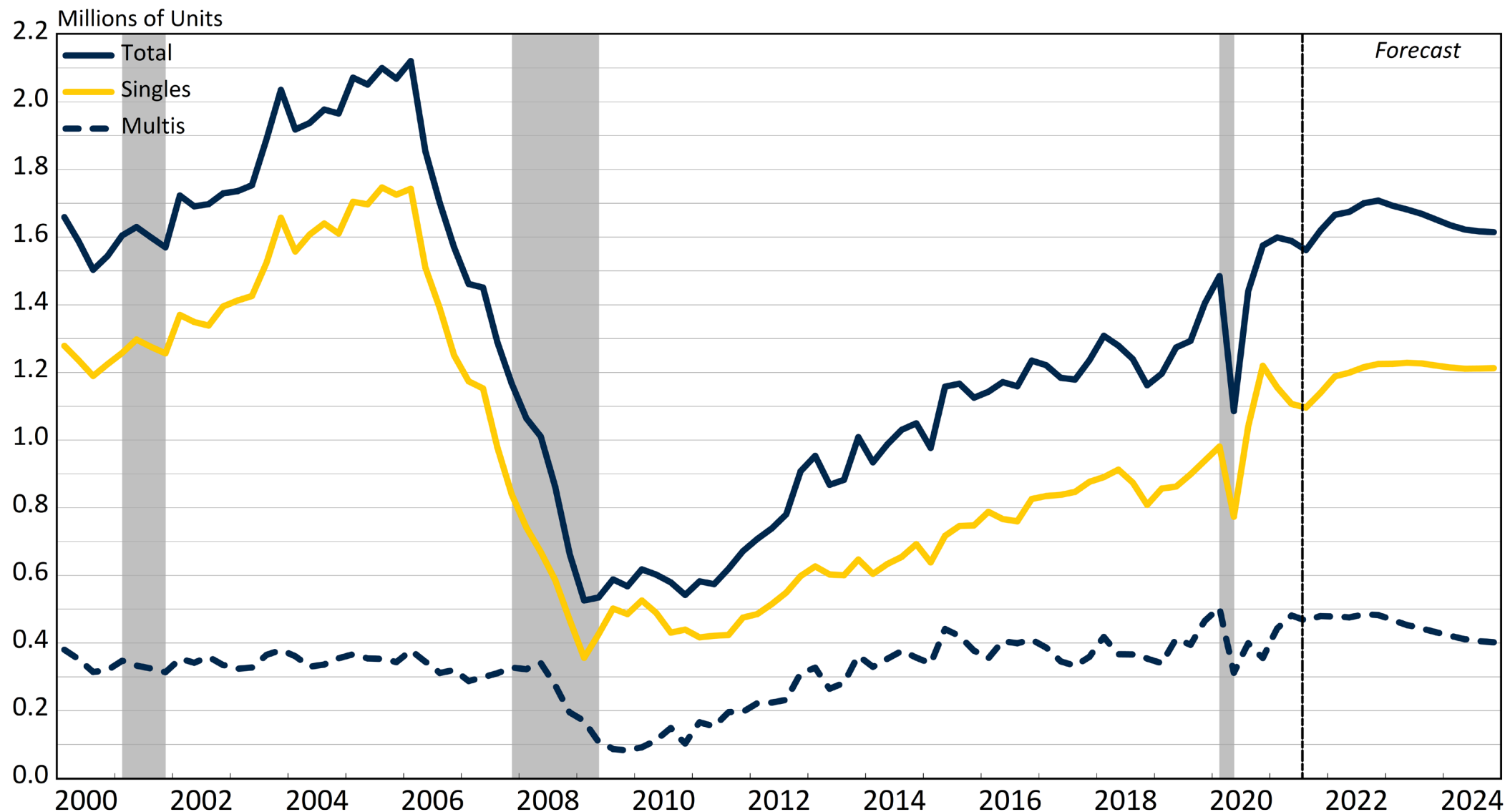


Consumer Price Inflation (CPI-U)

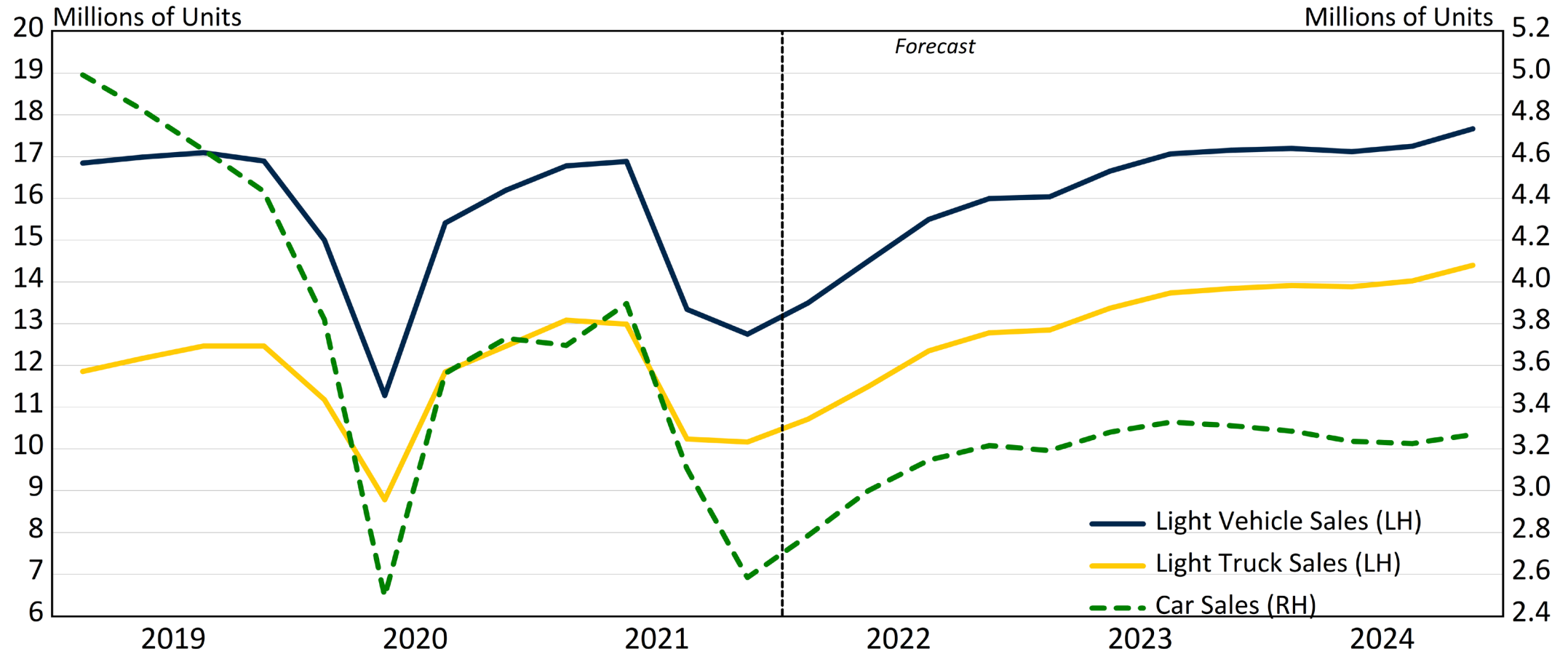


4th Quarter to 4th Quarter % Change						
Core CPI	2.29	1.63	4.91	3.68	2.75	2.76
CPI	2.03	1.21	6.77	3.17	2.73	2.71

Housing Starts



Light Vehicle Sales



Annual Vehicle Sales				
17	14.5	14.9	14.9	16.7
17.3				

Risks

- The Pandemic
 - Domestic
 - International
- Supply Chain Stress
- Inflation
 - Monetary policy
 - Fiscal path
 - Elections
- Housing Sector

The Economic Outlook for Michigan for 2022–2024



Consensus Revenue Estimating Conference

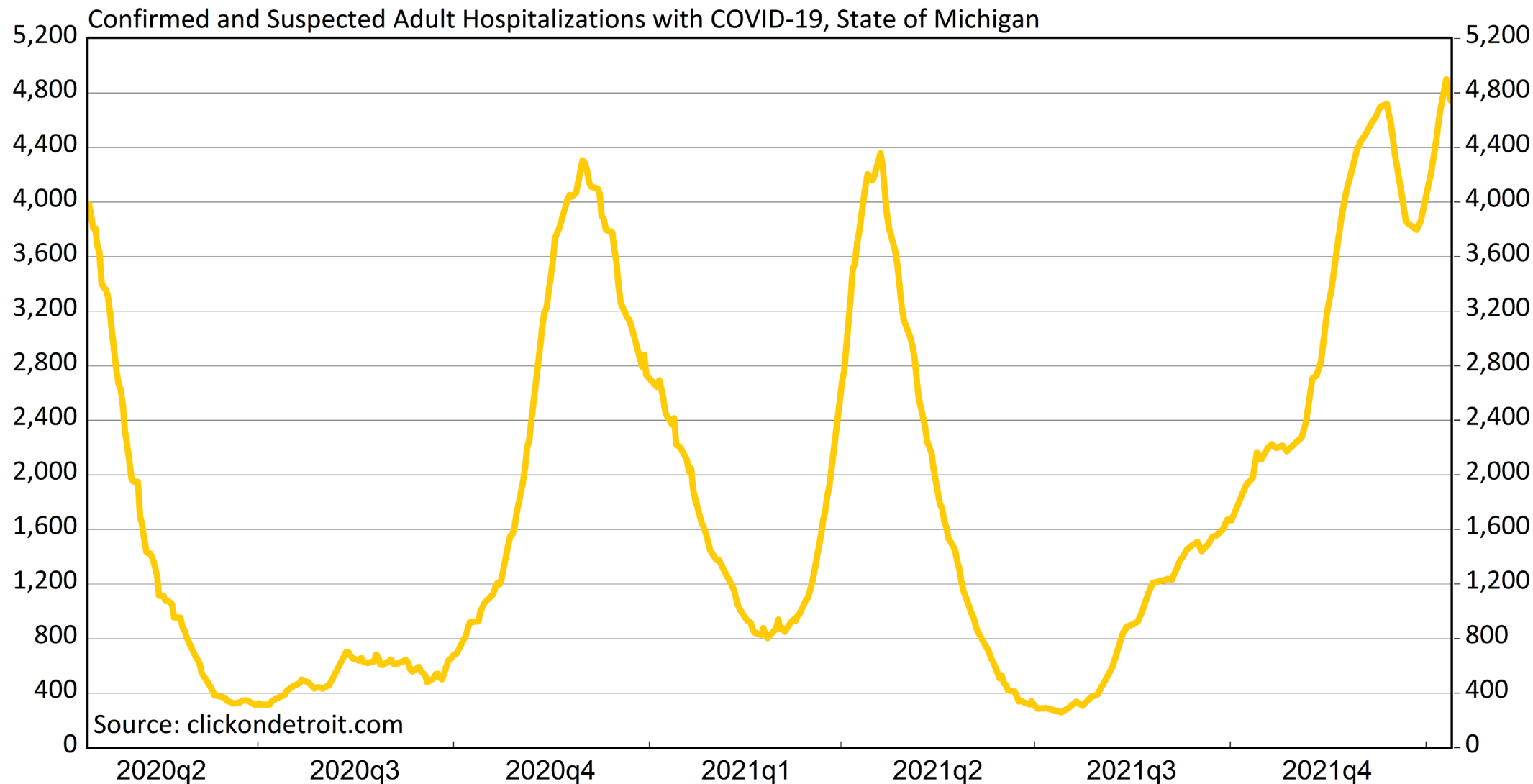
January 14, 2022

Research Seminar in Quantitative Economics

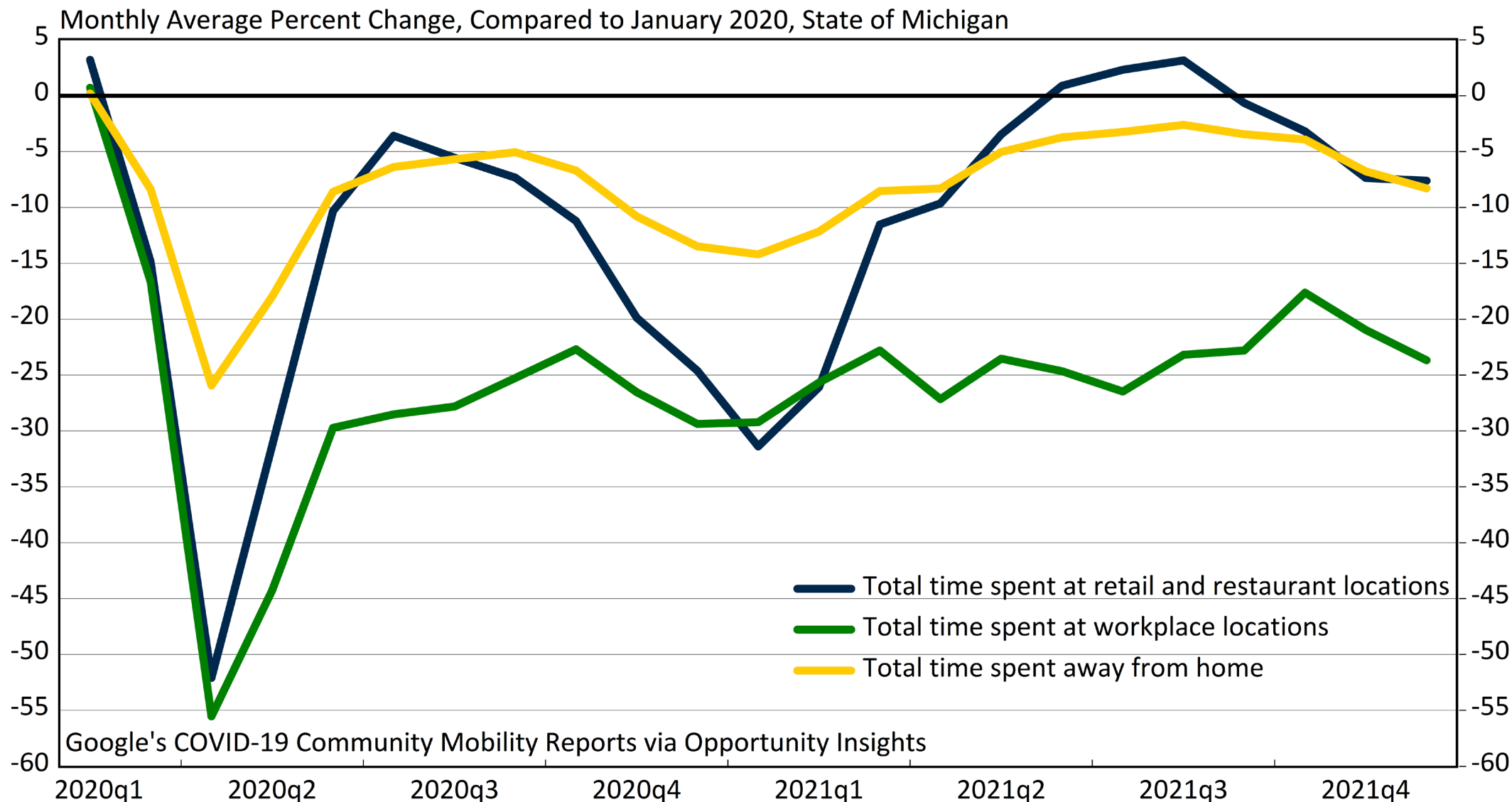


High-Frequency Indicators: Michigan

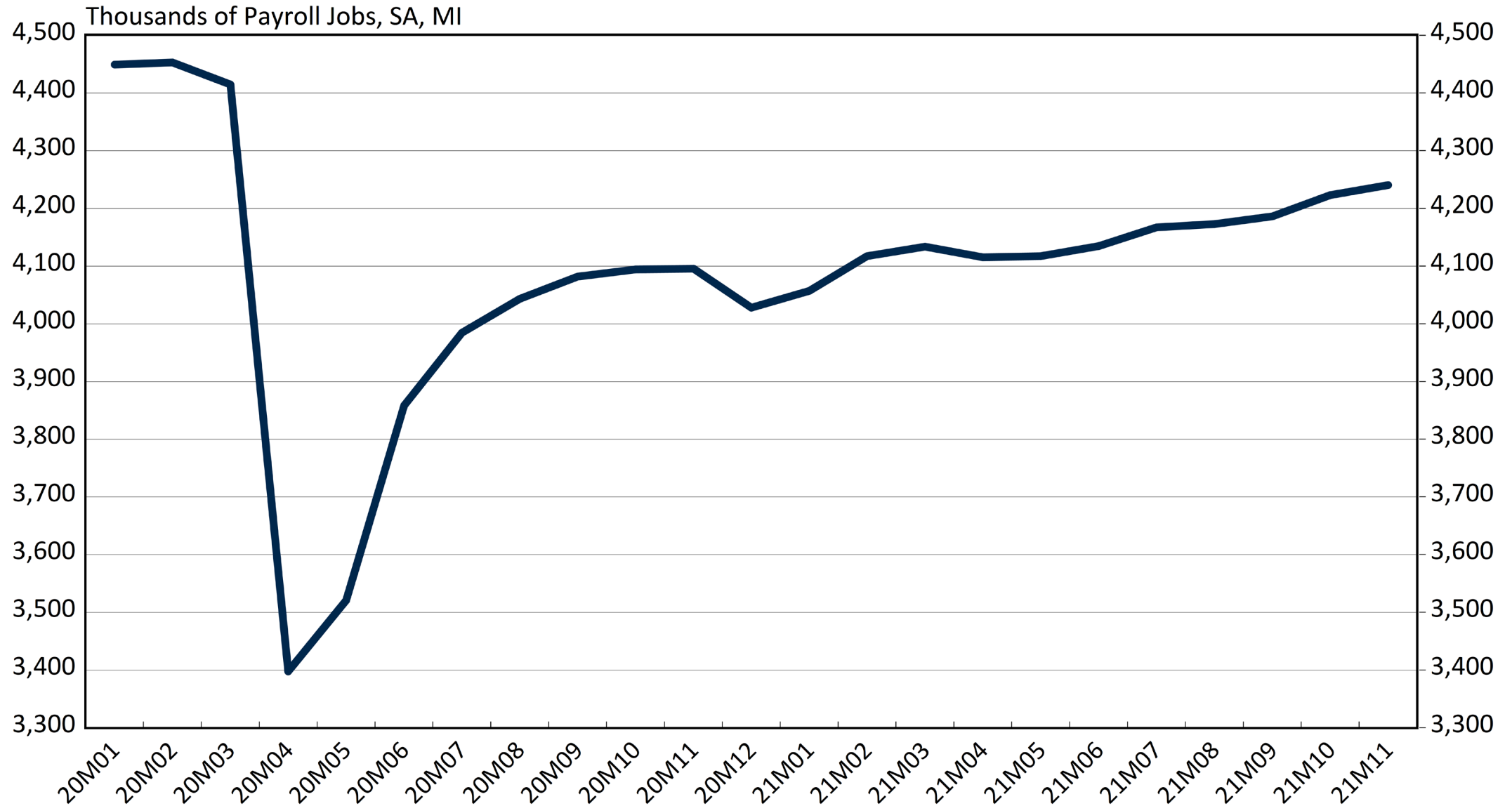
COVID-19 Hospitalizations at Record Highs



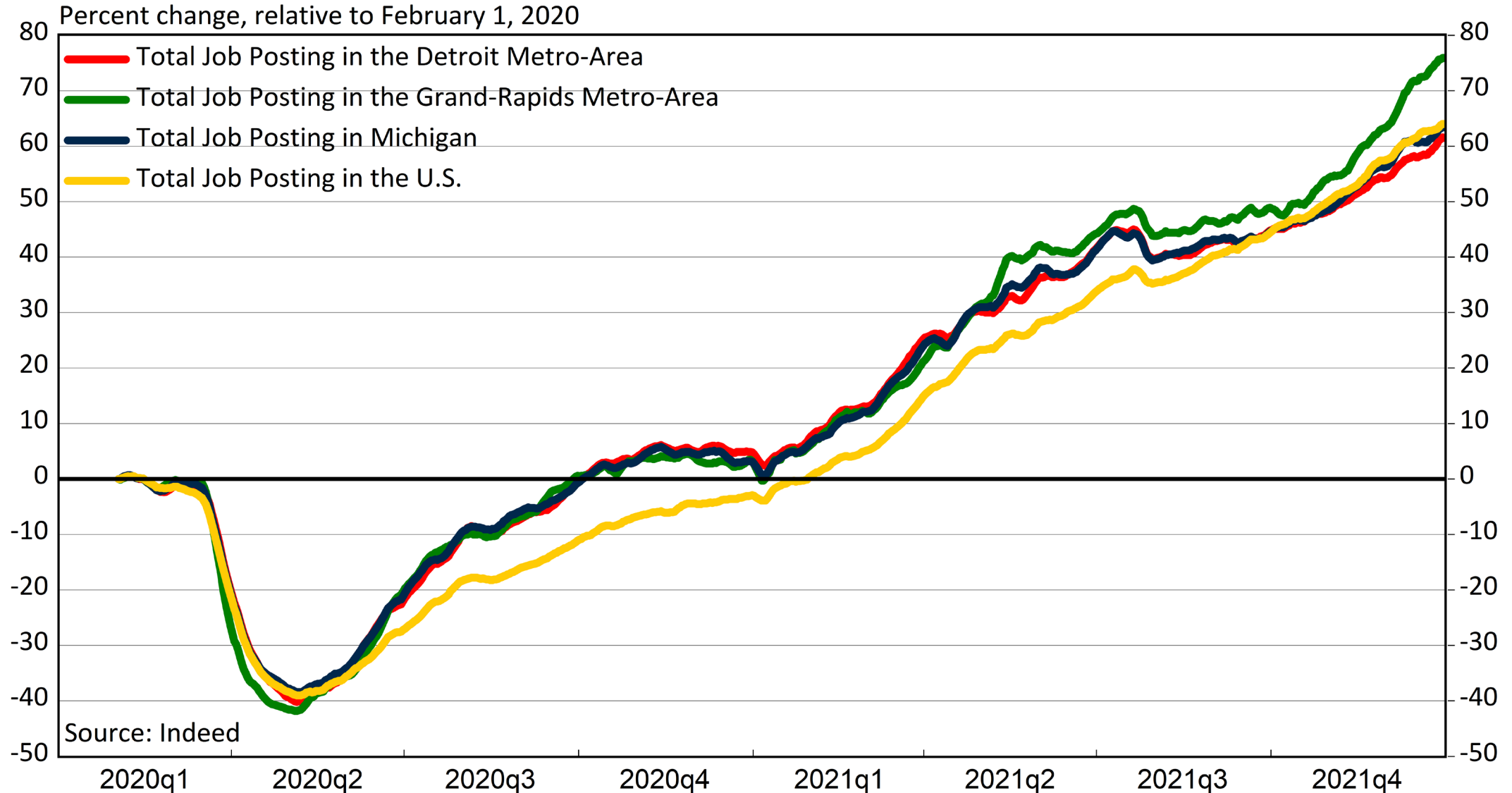
Pandemic Starting to Weigh on Activity Again



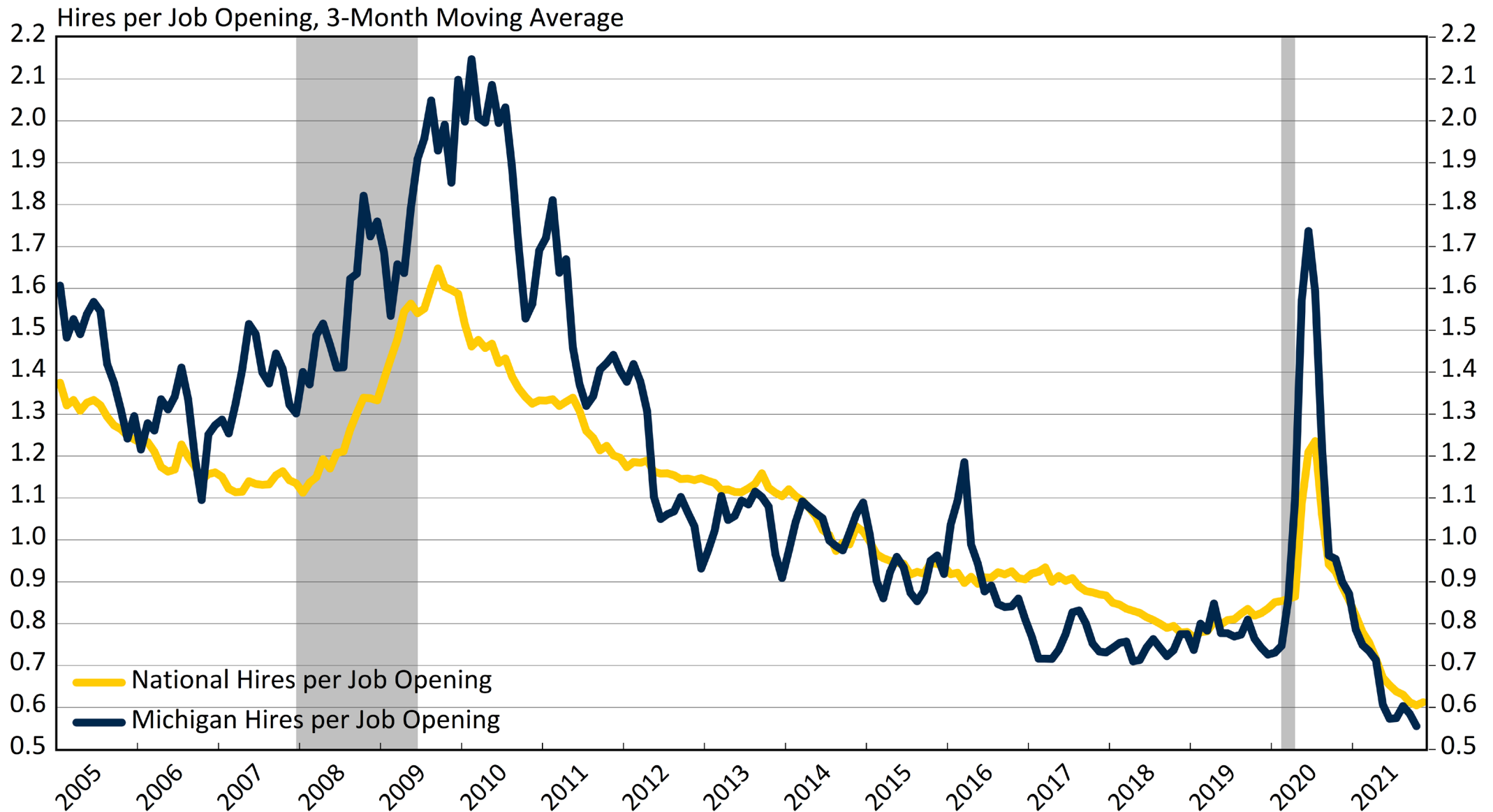
Still Climbing Out of a Deep Jobs Hole



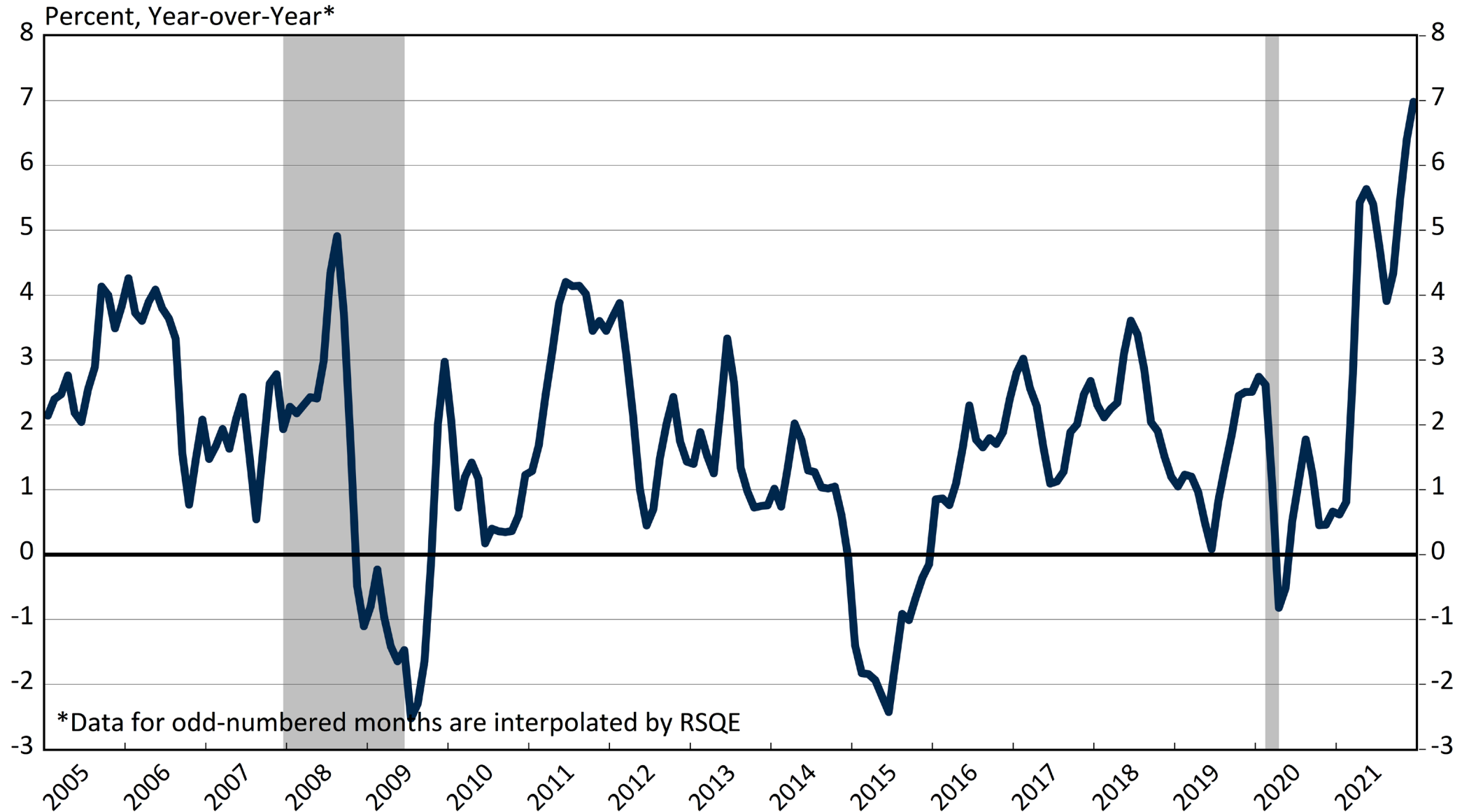
Job Openings Still Sky High



Filling Jobs Is Getting Harder

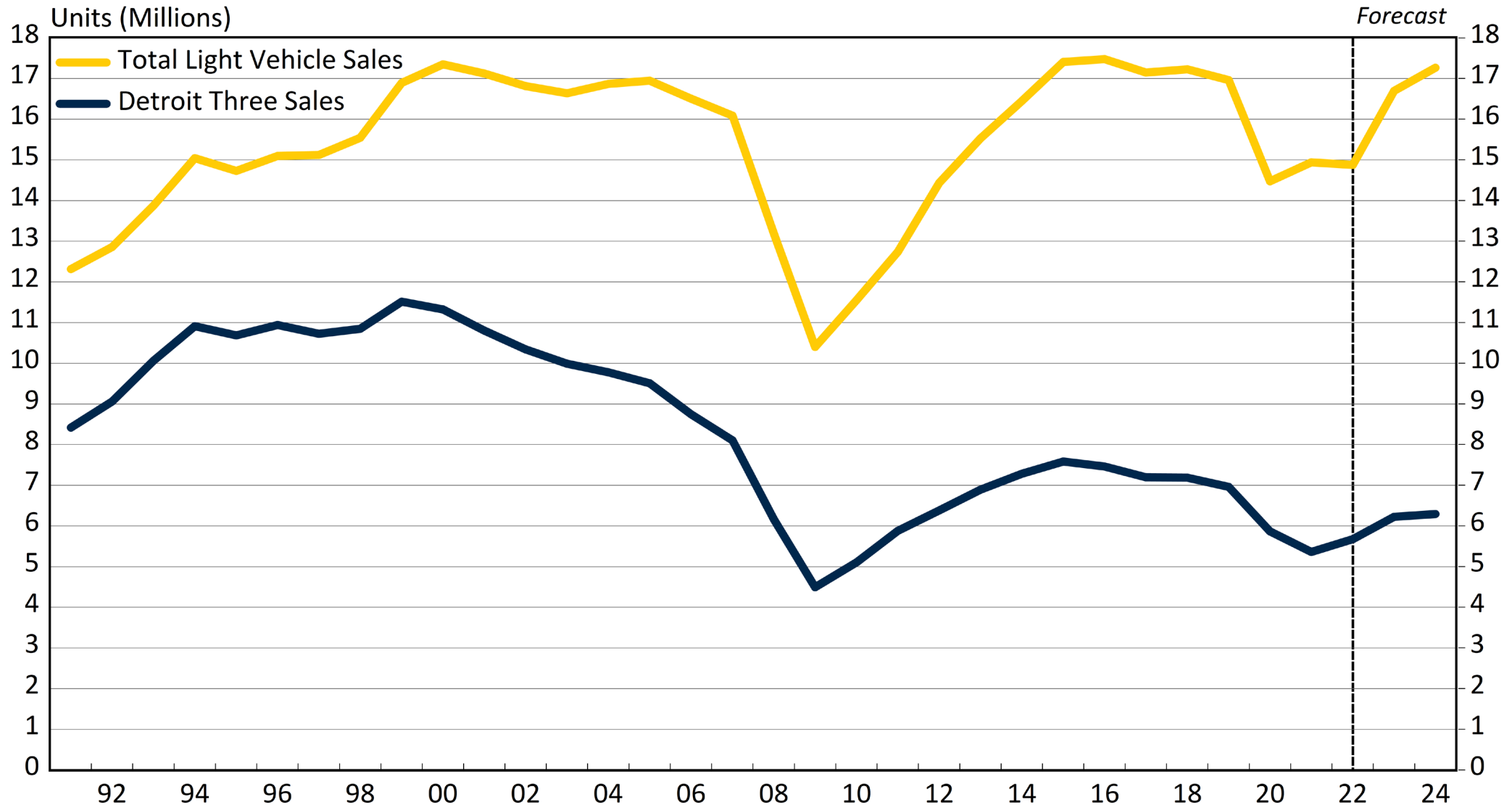


Local Inflation: Fastest Since 1981

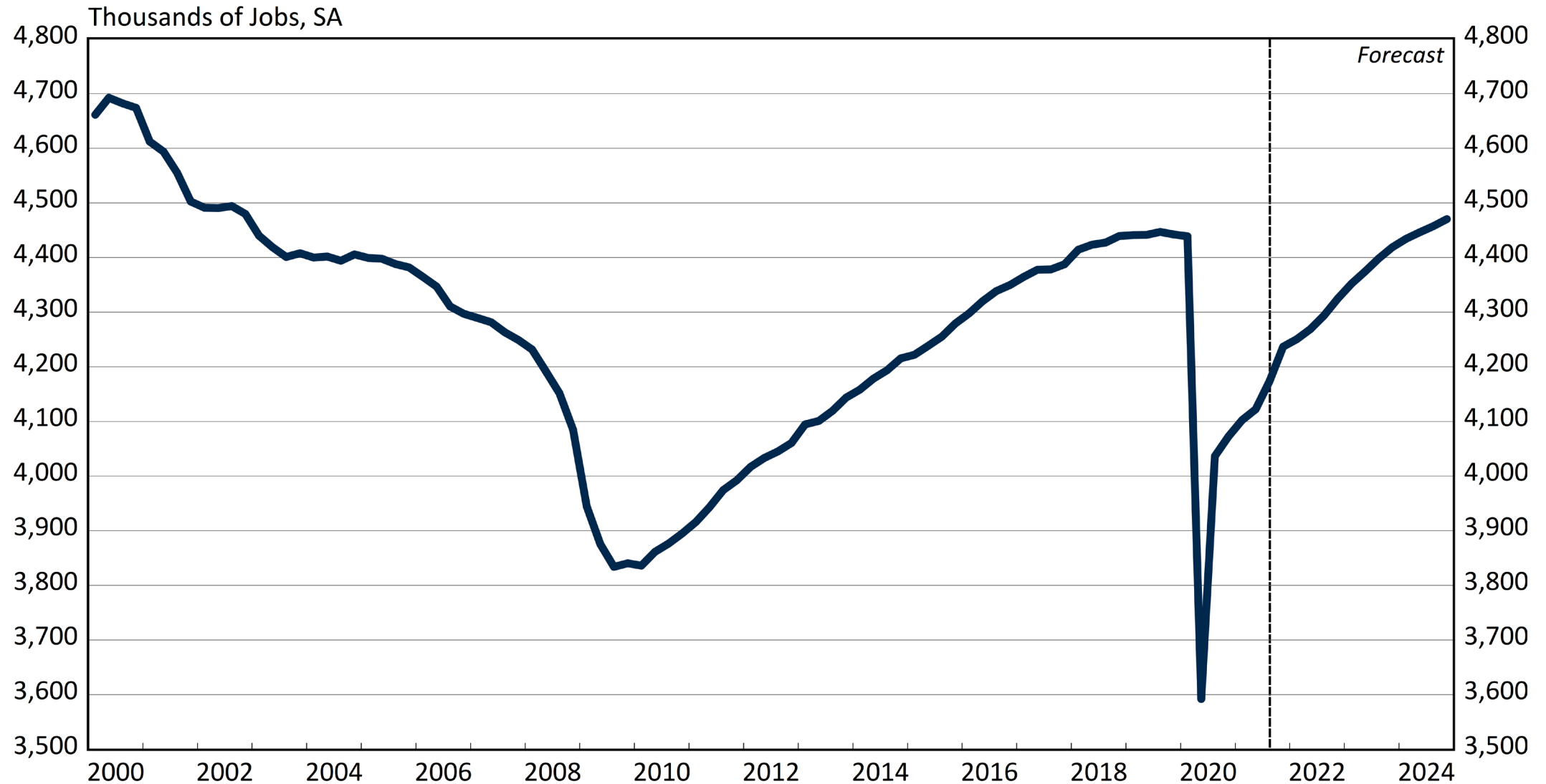


Michigan Economic Outlook

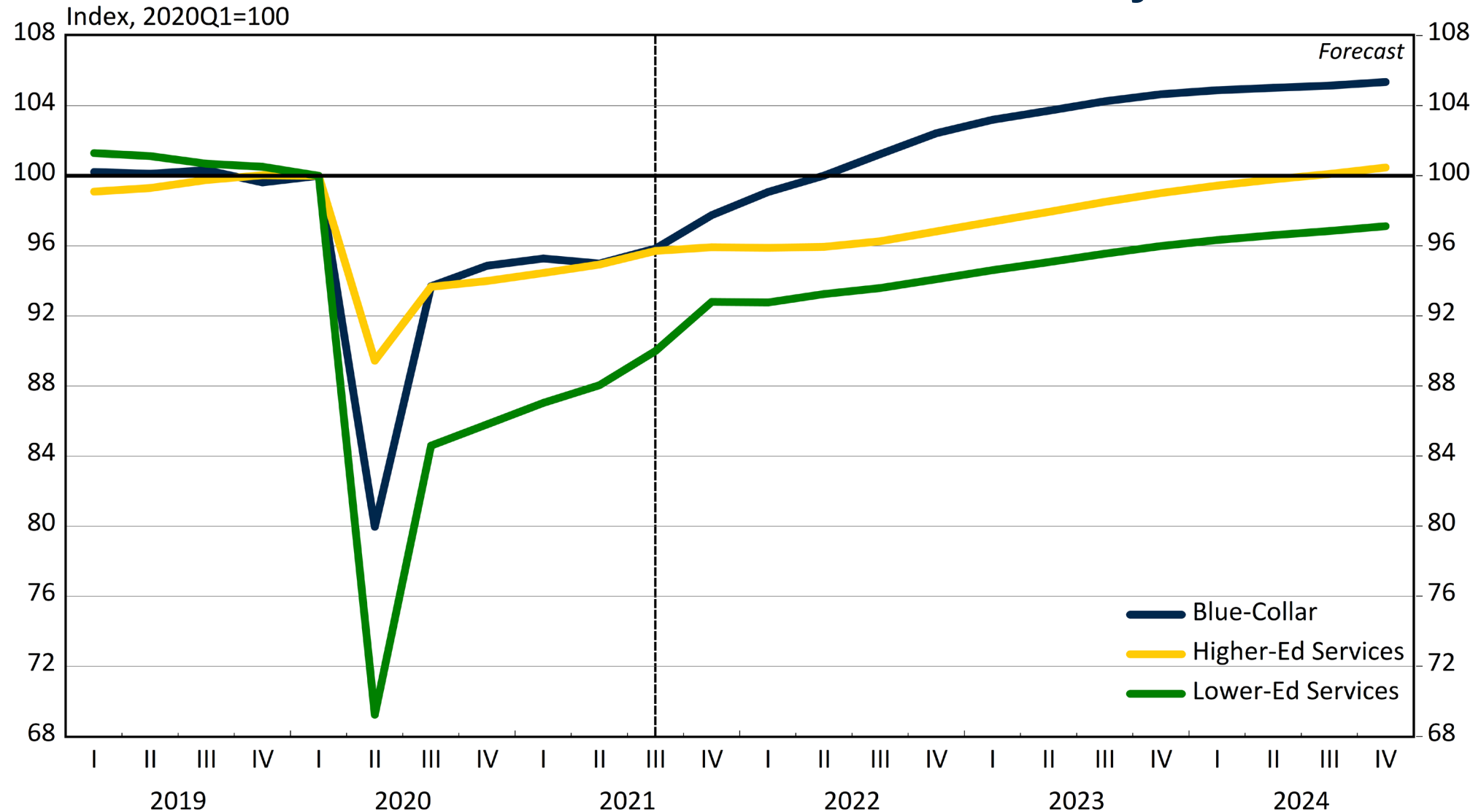
Annual Light Vehicle Sales: Recovery with a Lag



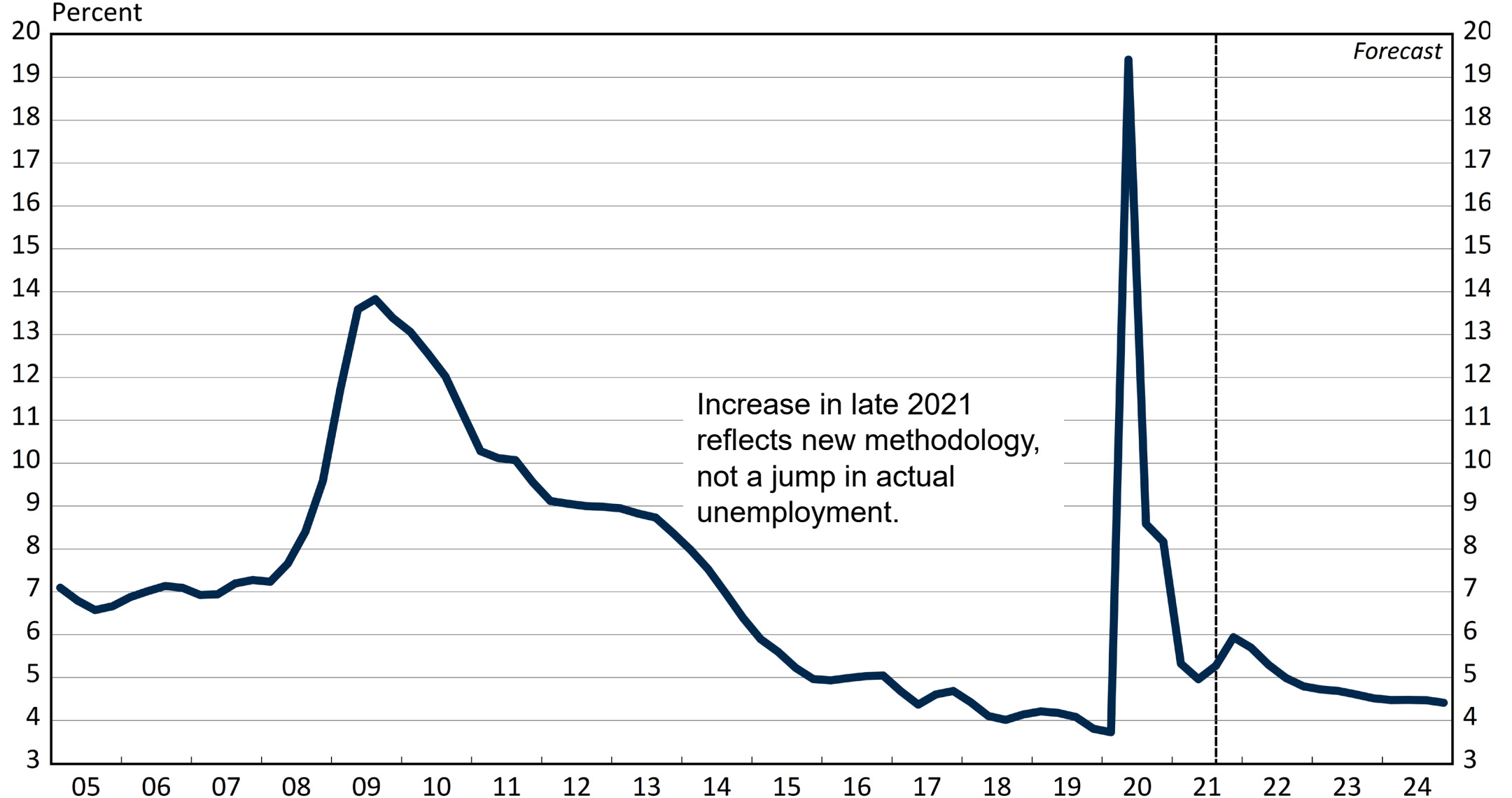
Quarterly Michigan Payroll Employment: Full Recovery in Early 2024



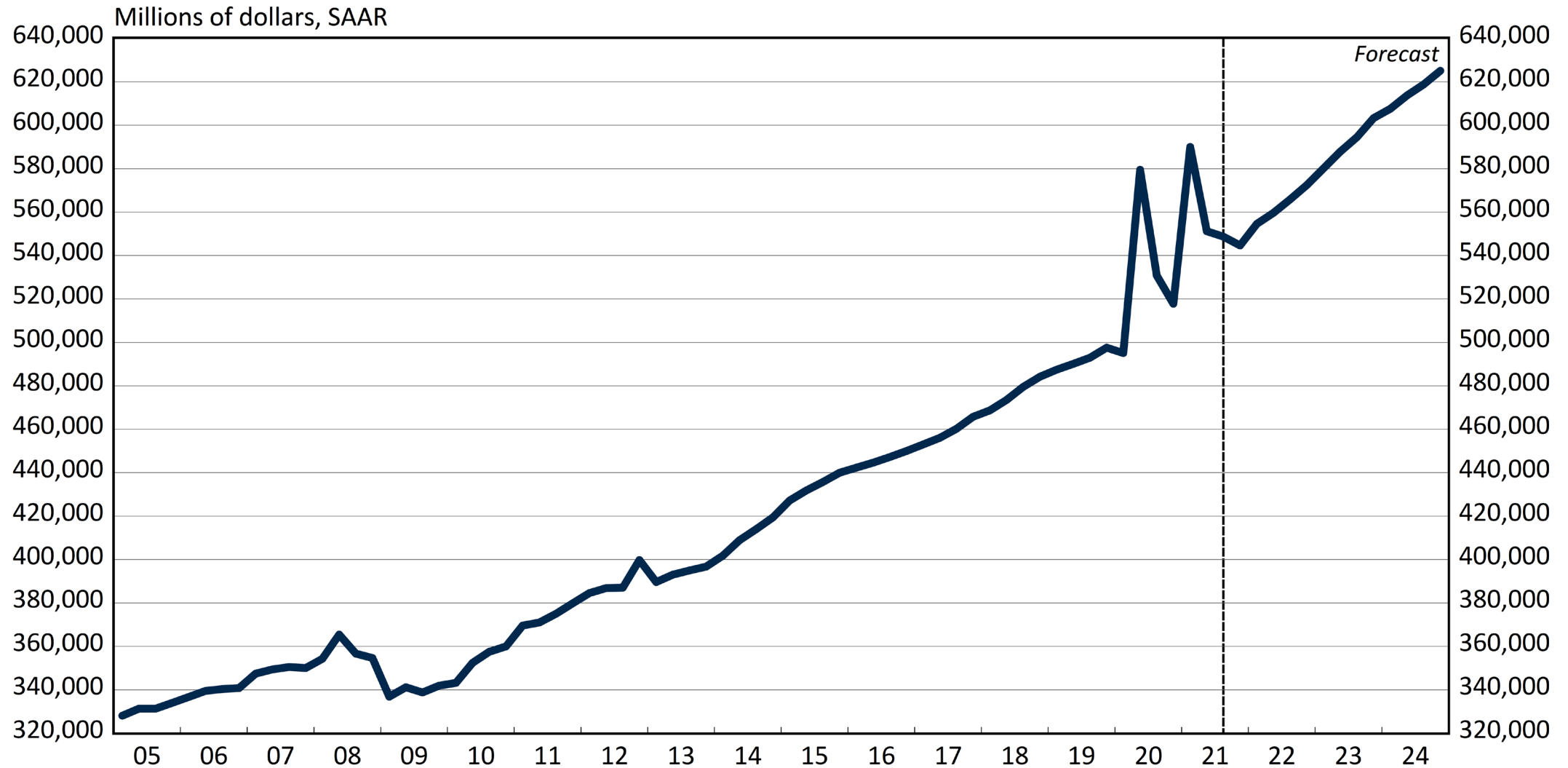
Employment Outlook by Industry Group: Blue-Collar Industries Lead the Way



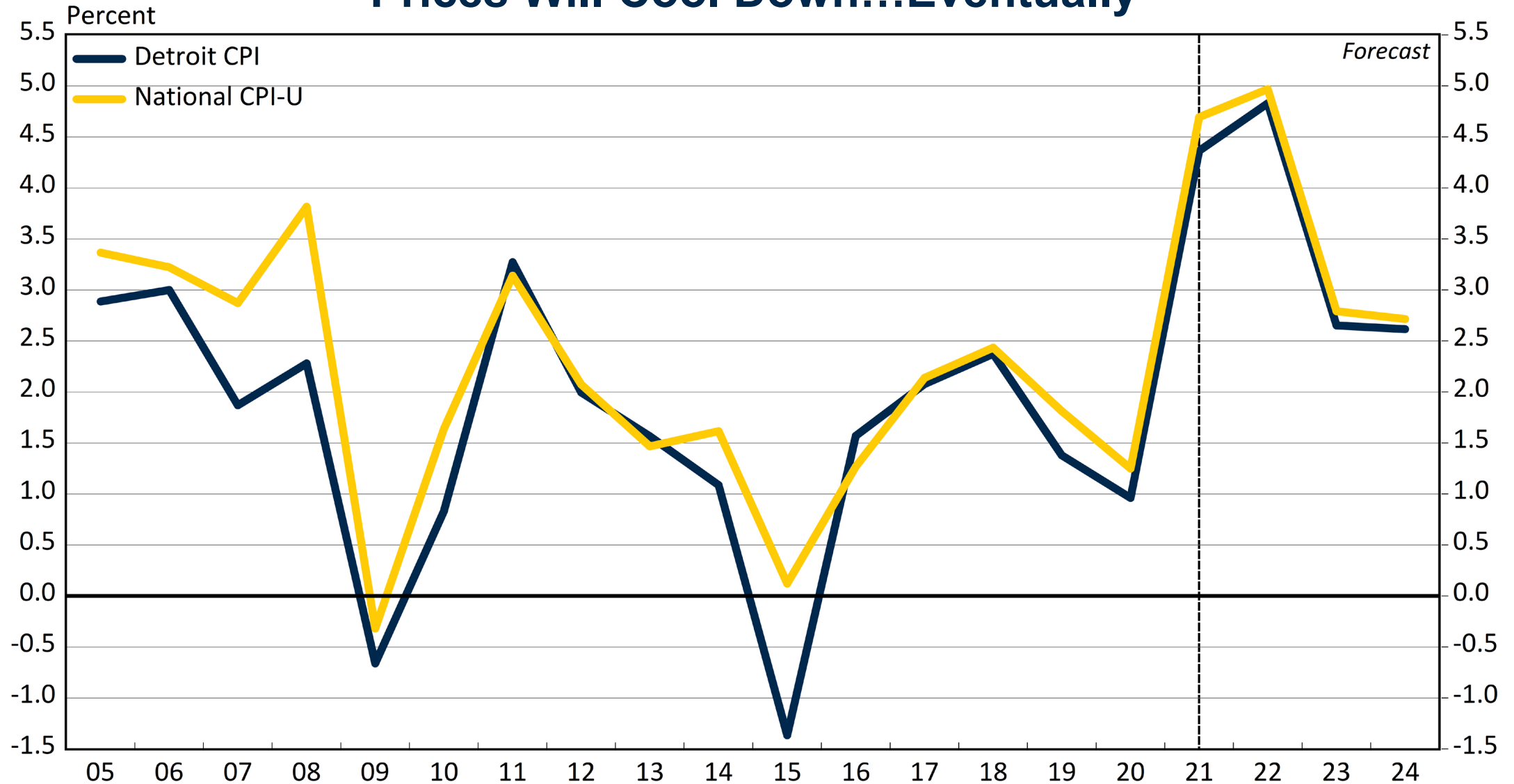
Quarterly Michigan Unemployment Rate



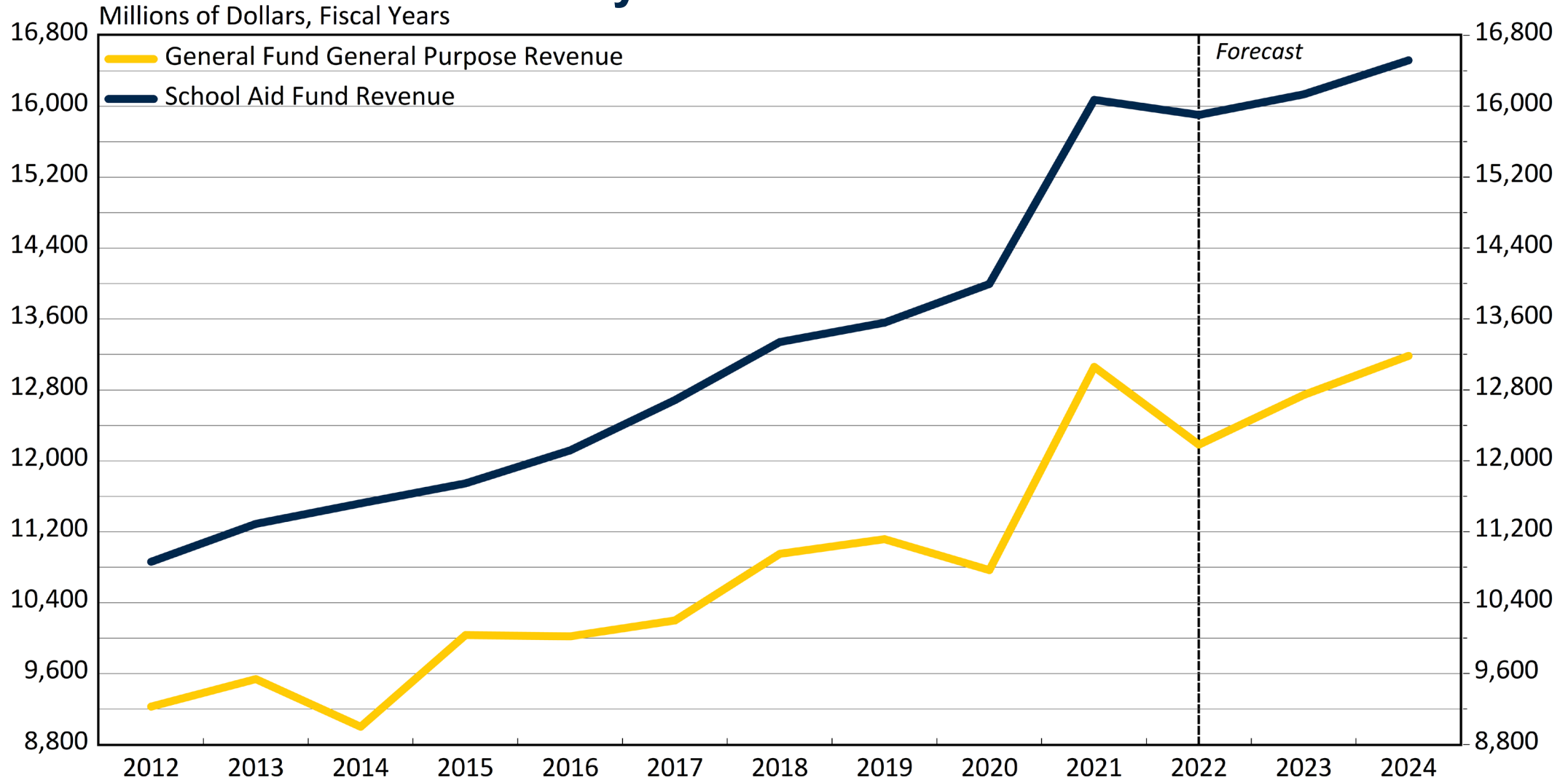
Quarterly Michigan Personal Income: Stimulus Offset Income Losses



National and Local Inflation: Prices Will Cool Down...Eventually



State Tax Revenues: Will They Come Back to Trend?





lsa.umich.edu/econ/rsqe